



Mimetismo molecular e interacciones entre la glicoproteína S de SARS-CoV-2 y proteínas humanas

Molecular mimicry and interactions between SARS-CoV-2 S glycoprotein and human proteins

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DATOS SUPLEMENTARIOS

TABLA 1. Moléculas humanas que pueden interactuar con gp S de SARS-CoV-2, de acuerdo con Bio-Grid (<https://thebiogrid.org/4383848>)

Interactor	Sinonimia	Descripción
SLC38A1	SAT1, ATA1, NAT2, SNAT1	solute carrier family 38, member 1
MAGT1	IAP, XMEN, OST3B, MRX95, PRO0756, bA217H1.1, RP11-217H1.1	magnesium transporter 1
PDIA6	P5, ERP5, TXNDC7	protein disulfide isomerase family A, member 6
CTDSP1	NIF3, SCP1, NLIIF, NLI-IF	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 1
NAALAD2	GCPIII, GPCIII, NAALADASE2, NAADALASE2	N-acetylated alpha-linked acidic dipeptidase 2
FERMT2	MIG2, KIND2, mig-2, UNC112, UNC112B, PLEKHC1	fermitin family member 2
PRKCD	MAY1, PKCD, ALPS3, CVID9, nPKC-delta	protein kinase C, delta
SNX27	MRT1, MY014, RP11-98D18.12-005	sorting nexin family member 27
TOR1AIP1	LAP1, LAP1B, RP11-533E19.1	torsin A interacting protein 1
EFR3B	KIAA0953, RP11-509E16.1	EFR3 homolog B (<i>S. cerevisiae</i>)
FLOT2	ESA, ECS1, ESA1, M17S1, ECS-1	flotillin 2
ERGIC3	Erv46, CGI-54, PRO0989, NY-BR-84, SDBCAG84, C20orf47, dj47704.2, RP3-47704.1	ERGIC and golgi 3
ALG1	MT-1, HMT1, HMT-1, Mat-1, CDG1K, HMAT1, hMat-1, PSEC0061	ALG1, chitobiosyldiphosphodolichol beta-mannosyltransferase
KCNN4	SK4, IK1, KCA4, hSK4, hKCa4, IKCA1, KCa3.1, hKCa1	potassium intermediate/small conductance calcium-activated channel, subfamily N, member 4
EFNB1	CFND, EFL3, CFNS, EFB1, Elk-L, EPLG2, LERK2, RP3-496G1.1	ephrin-B1
SNAP23	SNAP23B, SNAP23A, SNAP-23, HsT17016	synaptosomal-associated protein, 23kDa
CDKAL1	-	CDK5 regulatory subunit associated protein 1-like 1
SPCS2	-	signal peptidase complex subunit 2 homolog (<i>S. cerevisiae</i>)
SEC23A	CLSD	Sec23 homolog A (<i>S. cerevisiae</i>)
EPHB4	HTK, MYK1, TYRO11	EPH receptor B4
STOM	EPB7, BND7, EPB72, RP11-342H3.1	stomatin



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RAB2A	LHX, RAB2	RAB2A, member RAS oncogene family
FAU	S30, Fubi, Fub1, FAU1, asr1, RPS30, MNSFbeta	Finkel-Biskis-Reilly murine sarcoma virus (FBR-MuSV) ubiquitously expressed
TMED8	L10, FAM15B	transmembrane emp24 protein transport domain containing 8
PLEKHA3	FAPP1	pleckstrin homology domain containing, family A (phosphoinositide binding specific) member 3
EIF1	ISO1, A121, SUI1, EIF1A, EIF-1	eukaryotic translation initiation factor 1
ABCB9	TAPL, EST122234	ATP-binding cassette, sub-family B (MDR/TAP), member 9
LBR	PHA, LMN2R, TDRD18, DHCR14B, PRO0650	lamin B receptor
MCAM	CD146, MUC18	melanoma cell adhesion molecule
ABHD2	HS1-2, LABH2, PPHP1-2	abhydrolase domain containing 2
PDIA3	P58, ER60, ERp60, ERp57, GRP58, GRP57, ERp61, PI-PLC, HsT17083, HEL-S-93n, ... more	protein disulfide isomerase family A, member 3
CHP1	CHP, p22, p24, Sid470p, SLC9A1BP	calcineurin-like EF-hand protein 1
TMEM43	LUMA, EDMD7, ARVD5, ARVC5, UNQ2564/PRO6244	transmembrane protein 43
EPB41L5	YMO1, BE37	erythrocyte membrane protein band 4.1 like 5
GRAMD1A	KIAA1533	GRAM domain containing 1A
CTSV	CTSU, CTSL2, CATL2, UNQ268/PRO305	cathepsin V
ITGA6	CD49f, VLA-6, ITGA6B	integrin, alpha 6
RPS27A	UBC, S27A, CEP80, UBA80, UBCEP1, HEL112, UBCEP80	ribosomal protein S27a
PLCL2	PLCE2	phospholipase C-like 2
F2	PT, THPH1, RPRGL2	coagulation factor II (thrombin)
SLC9A3R2	SIP1, OCTS2, SIP-1, TKA-1, E3KARP, NHERF2, NHE3RF2, NHERF-2	solute carrier family 9, subfamily A (NHE3, cation proton antiporter 3), member 3 regulator 2
PIK3R3	p55, p55-GAMMA, RP4-533D7.2	phosphoinositide-3-kinase, regulatory subunit 3 (gamma)
TULP3	TUBL3	tubby like protein 3
FAF2	ETEA, UBXD8, UBXN3B	Fas associated factor family member 2
DMD	BMD, CMD3B, MRX85, DXS270, DXS272, DXS164, DXS239, DXS206, DXS142, DXS230, ... more	dystrophin
BASP1	CAP23, NAP22, CAP-23, NAP-22	brain abundant, membrane attached signal protein 1
EIF2S1	EIF2, EIF-2, EIF2A, EIF-2A, EIF-2alpha	eukaryotic translation initiation factor 2, subunit 1 alpha, 35kDa
COPB2	beta'-COP	coatamer protein complex, subunit beta 2 (beta prime)
ITPR3	IP3R, IP3R3	inositol 1,4,5-trisphosphate receptor, type 3
ARPC1B	ARC41, p40-ARC, p41-ARC	actin related protein 2/3 complex, subunit 1B, 41kDa
FUT8	-	fucosyltransferase 8 (alpha (1,6) fucosyltransferase)
AGPAT5	LPAATE, 1AGPAT5	1-acylglycerol-3-phosphate O-acyltransferase 5
SREBF2	SREBP2, bHLHd2, SREBP-2, CTA-250D10.14-005	sterol regulatory element binding transcription factor 2
HSD17B11	DHRS8, PAN1B, SDR16C2, RETSDR2, 17BHSD11, PSEC0029, 17-BETA-HSD11, 17-BETA-HSDXI	hydroxysteroid (17-beta) dehydrogenase 11
FUK	UNQ5838, 1110046B12Rik	fucokinase
F10	FX, FXA, RP11-98F14.9	coagulation factor X
LMAN2	GP36B, VIP36, C5orf8	lectin, mannose-binding 2
LRP6	ADCAD2	low density lipoprotein receptor-related protein 6

CTSK	CTSO, PYCD, PKND, CTS02, CTSO1, CTSO2, RP11-363I22.4	cathepsin K
OSBPL8	ORP8, MST120, OSBP10, MSTP120	oxysterol binding protein-like 8
DDX39B	BAT1, UAP56, D6S81E, DAAP-97M17.4	DEAD (Asp-Glu-Ala-Asp) box polypeptide 39B
SEC63	ERdj2, SEC63L, DNAJC23, PRO2507, RP1-191J18.4	SEC63 homolog (S. cerevisiae)
SUN2	UNC84B, RP3-508I15.15-002	Sad1 and UNC84 domain containing 2
VAT1	VATI	vesicle amine transport 1
ABCC2	DJ5, cMRP, MRP2, CMOAT, ABC30, RP11-114F7.2	ATP-binding cassette, sub-family C (CFTR/MRP), member 2
TOM1	CTA-286B10.4	target of myb1 (chicken)
HMOX2	HO-2	heme oxygenase (decycling) 2
TRAPPC8	GSG1, TRS85, HsT2706, KIAA1012	trafficking protein particle complex 8
SLC9A3R1	NHERF, EBP50, NHERF1, NPHLOP2, NHERF-1	solute carrier family 9, subfamily A (NHE3, cation proton antiporter 3), member 3 regulator 1
SAR1A	SAR1, Sara, SARA1, masra2, RP11-367H5.4	secretion associated, Ras related GTPase 1A
HM13	SPP, H13, IMP1, PSL3, SPPL1, IMPAS, PSENL3, MSTP086, IMPAS-1, dj324O17.1, ... more	histocompatibility (minor) 13
SMU1	BWD, SMU-1, fSAP57, RP11-54K16.3	smu-1 suppressor of mec-8 and unc-52 homolog (C. elegans)
ACACA	ACC, ACCA, ACAC, ACC1, ACACAD	acetyl-CoA carboxylase alpha
ANKLE2	Lem4, LEMD7, KIAA0692	ankyrin repeat and LEM domain containing 2
ESYT1	MBC2, FAM62A	extended synaptotagmin-like protein 1
VPS35	MEM3, PARK17, TCCCTA00141	vacuolar protein sorting 35 homolog (S. cerevisiae)
JAM3	JAMC, JAM-2, JAM-3, JAM-C, UNQ859/PRO1868	junctional adhesion molecule 3
DCBLD2	ESDN, CLCP1	discoidin, CUB and LCCL domain containing 2
SPAG1	TPIS, SP75, CT140, CILD28, HSD-3.8	sperm associated antigen 1
SLC1A5	R16, AAAT, M7V1, RDRC, ATBO, ASCT2, M7VS1	solute carrier family 1 (neutral amino acid transporter), member 5
FAM83B	C6orf143, RP3-523K23.2	family with sequence similarity 83, member B
CTNND1	CAS, p120, CTNND, P120CAS, P120CTN, p120(CAS), p120(CTN)	catenin (cadherin-associated protein), delta 1
MINK1	B55, ZC3, MINK, YSK2, hMINK, MAP4K6, hMINKbeta	misshapen-like kinase 1
KREMEN2	KRM2	kringle containing transmembrane protein 2
PRMT1	ANM1, HCP1, IR1B4, HRMT1L2	protein arginine methyltransferase 1
PRKCSH	PLD1, PCLD, G19P1, PKCSH, AGE-R2	protein kinase C substrate 80K-H
SLC12A2	BSC, BSC2, NKCC1, PPP1R141	solute carrier family 12 (sodium/potassium/chloride transporter), member 2
SUN1	UNC84A	Sad1 and UNC84 domain containing 1
ARL13B	JBTS8, ARL2L1	ADP-ribosylation factor-like 13B
FSCN1	SNL, p55, HSN, FAN1	fascin actin-bundling protein 1
PKMYT1	MYT1, PPP1R126	protein kinase, membrane associated tyrosine/threonine 1
RCC2	TD-60	regulator of chromosome condensation 2
SGPL1	SPL, S1PL	sphingosine-1-phosphate lyase 1
SIGLEC10	SLG2, PRO940, SIGLEC-10, UNQ477/PRO940	sialic acid binding Ig-like lectin 10
DEPDC7	TR2, dj85M6.4	DEP domain containing 7
WDR72	AI2A3	WD repeat domain 72
AUP1	-	ancient ubiquitous protein 1
ATP6VOA2	A2, RTF, WSS, TJ6, STV1, TJ6S, VPH1, ARCL,	ATPase, H+ transporting, lysosomal V0

	J6B7, TJ6M, ... more	subunit a2
EFNB3	EFL6, EPLG8, LERK8	ephrin-B3
LAMTOR1	p18, PDRO, PP7157, C11orf59, p27RF-Rho, Ragulator1	late endosomal/lysosomal adaptor, MAPK and MTOR activator 1
LPCAT4	AYTL3, AGPAT7, LPEAT2, LPAAT-eta	lysophosphatidylcholine acyltransferase 4
ATP2A2	DD, DAR, ATP2B, SERCA2	ATPase, Ca++ transporting, cardiac muscle, slow twitch 2
ACSL4	ACS4, MRX68, MRX63, LACS4, FACL4	acyl-CoA synthetase long-chain family member 4
SLC35B2	SLL, PAPST1, UGTrel4, RP1-302G2.3	solute carrier family 35 (adenosine 3'-phospho 5'-phosphosulfate transporter), member B2
DDRKG1	UFBP1, C20orf116, dj1187M17.3	DDRKG domain containing 1
DAG1	DAG, A3a, AGRNR, 156DAG, MDDGC9, MDDGC7	dystroglycan 1 (dystrophin-associated glycoprotein 1)
C18ORF32	-	chromosome 18 open reading frame 32
GRAMD1B	UNQ3032/PRO9834	GRAM domain containing 1B
UNC5B	UNC5H2, p53RDL1, RP11-58O1.1	unc-5 homolog B (C. elegans)
VRK2	-	vaccinia related kinase 2
CDC42EP4	CEP4, BORG4, KAIA1777	CDC42 effector protein (Rho GTPase binding) 4
SCAMP3	C1orf3	secretory carrier membrane protein 3
RASAL2	NGAP, RP4-593C16.1	RAS protein activator like 2
PPP1R16B	TIMAP, ANKRD4, RP5-1076E17.1	protein phosphatase 1, regulatory subunit 16B
CISD2	WFS2, ERIS, ZCD2, NAF-1, Miner1	CDGSH iron sulfur domain 2
ARL6IP5	jmx, JWA, hp22, PRAF3, DERP11, HSPC127, addicisin, GTRAP3-18	ADP-ribosylation factor-like 6 interacting protein 5
RTN4RL2	NgR2, NGRH1	reticulum 4 receptor-like 2
SLC39A10	LZT-Hs2	solute carrier family 39 (zinc transporter), member 10
PIKFYVE	CFD, FAB1, PIP5K, HEL37, PIP5K3, ZFYVE29	phosphoinositide kinase, FYVE finger containing
SPTLC1	SPT1, LBC1, LCB1, SPT1, HSN1, HSN1, RP11-118F2.1	serine palmitoyltransferase, long chain base subunit 1
PTDSS1	LMHD, PSS1, PSSA	phosphatidylserine synthase 1
ADCY9	AC9	adenylate cyclase 9
SLC7A11	xCT, CCBR1	solute carrier family 7 (anionic amino acid transporter light chain, xc- system), member 11
LYN	JTK8, p56Lyn, p53Lyn	LYN proto-oncogene, Src family tyrosine kinase
SNX14	RGS-PX2, RP11-321N4.2	sorting nexin 14
RPS6	S6, RP11-513M16.6	ribosomal protein S6
CERS2	L3, SP260, LASS2, TMSG1, RP11-316M1.2	ceramide synthase 2
ATP6V0C	Vma3, VPPC, ATPL, VATL, ATP6L, ATP6C	ATPase, H+ transporting, lysosomal 16kDa, V0 subunit c
SNTB1	A1B, SNT2, BSYN2, 59-DAP, TIP-43, DAPA1B, SNT2B1	syntrophin, beta 1 (dystrophin-associated protein A1, 59kDa, basic component 1)
AHCY	SAHH, adoHcyase	adenosylhomocysteinase
EMC3	POB, TMEM111	ER membrane protein complex subunit 3
SLC6A6	TAUT	solute carrier family 6 (neurotransmitter transporter), member 6
VAPA	VAP33, VAP-A, VAP-33, hVAP-33	VAMP (vesicle-associated membrane protein)-associated protein A, 33kDa
CHML	REP2	choroideremia-like (Rab escort protein 2)
NUMB	S171, C14orf41, c14_5527	numb homolog (Drosophila)
AP2M1	mu2, AP50, CLAPM1	adaptor-related protein complex 2, mu 1 subunit
C1ORF43	NICE-3, S863-3, HSPC012, NS5ATP4	chromosome 1 open reading frame 43
SRP19	-	signal recognition particle 19kDa
VAPB	ALS8, VAP-B, VAMP-B, RP5-1018E9.1	VAMP (vesicle-associated membrane

		protein)-associated protein B and C
FADS2	D6D, DES6, TU13, FADSD6, LLCDL2, SLL0262	fatty acid desaturase 2
HMGB1	HMG1, HMG3, SBP-1, RP11-550P23.1	high mobility group box 1
TMEM38B	OI14, TRICB, TRIC-B, C9orf87, D4ErtD89e, bA219P18.1, RP11-219P18.1	transmembrane protein 38B
MAPKAP1	SIN1, MIP1, JC310, SIN1g, SIN1b, RP11-269P11.1	mitogen-activated protein kinase associated protein 1
NIPSNAP1	-	nipsnap homolog 1 (C. elegans)
CAB39	MO25, CGI-66	calcium binding protein 39
CDH17	HPT1, HPT-1, CDH16	cadherin 17, LI cadherin (liver-intestine)
GPC3	SGB, DGSX, SDYS, MXR7, SGBS, SGBS1, OCI-5, GTR2-2, AC002420.1	glypican 3
LILRB2	ILT4, LIR2, LIR-2, ILT-4, CD85D, MIR10, MIR-10, XXbac-BCX105G6.12-005	leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 2
RPN1	OST1, RBPH1	ribophorin I
MXRA7	TMAP1, PS1TP1	matrix-remodelling associated 7
CSNK1G3	CSNK1G3L, CKI-gamma 3	casein kinase 1, gamma 3
TXNDC5	HCC-2, ERP46, STRF8, UNQ364, PDIA15, ENDOPDI, RP1-126E20.1	thioredoxin domain containing 5 (endoplasmic reticulum)
KCNB2	KV2.2	potassium voltage-gated channel, Shab-related subfamily, member 2
ELOVL1	Ssc1, CGI-88	ELOVL fatty acid elongase 1
LGR4	GPR48, BNMD17	leucine-rich repeat containing G protein-coupled receptor 4
CAPN2	CANP2, mCANP, CANPL2, CANPml	calpain 2, (m/II) large subunit
CCDC47	GK001, MSTP041	coiled-coil domain containing 47
NID1	NID	nidogen 1
RAB11A	YL8	RAB11A, member RAS oncogene family
SLC4A2	AE2, HKB3, NBND3, BND3L, EPB3L1	solute carrier family 4 (anion exchanger), member 2
PSMB5	X, MB1, LMPX	proteasome (prosome, macropain) subunit, beta type, 5
SNX6	TFAF2, MSTP010	sorting nexin 6
PROM1	RP41, CD133, MCDR2, STGD4, AC133, CORD12, PROML1, MSTP061	prominin 1
TOR1AIP2	NET9, LULL1, IFRG15, RP11-12M5.5	torsin A interacting protein 2
LAMTOR3	MP1, MAPBP, PRO2783, MAPKSP1, PRO0633, MAP2K1IP1, Ragulator3	late endosomal/lysosomal adaptor, MAPK and MTOR activator 3
EPB41L2	4.1G, 4.1-G, RP3-324N14.1	erythrocyte membrane protein band 4.1-like 2
BANF1	BAF, NGPS, BCRP1, D14S1460	barrier to autointegration factor 1
KIAA1715	UI, LNP, LNP1, ulnaless	KIAA1715
TMCO4	RP5-1056L3.6	transmembrane and coiled-coil domains 4
CPNE8	-	copine VIII
ITGB5	-	integrin, beta 5
MTDH	3D3, AEG1, LYRIC, AEG-1, LYRIC/3D3	metadherin
CD44	IN, LHR, MDU3, MIC4, MC56, MDU2, Pgp1, HCELL, CSPG8, CDW44, ... more	CD44 molecule (Indian blood group)
LPHN2	CL2, LEC1, LPHH1, C1RL2	latrophilin 2
FAM49B	L1, BM-009	family with sequence similarity 49, member B
RPL26L1	RPL26P1	ribosomal protein L26-like 1
TEX264	ZSIG11, UNQ337/PRO536	testis expressed 264
SLCO4C1	OATPX, OATP-H, OATP-M1, PRO2176, OATP4C1, SLC21A20	solute carrier organic anion transporter family, member 4C1
CLEC10A	HML, MGL, HML2, CD301, CLECSF14, CLECSF13	C-type lectin domain family 10, member A
HLA-A	HLAA, DAQB-90C11.16-002	major histocompatibility complex, class I, A
SSR1	TRAPA, PSEC0262	signal sequence receptor, alpha
PIGU	GAB1, CDC91L1, RP11-346K17.2	phosphatidylinositol glycan anchor

		biosynthesis, class U
NETO2	NEOT2, BTCL2, UNQ1926/PRO4401	neuropilin (NRP) and tolloid (TLL)-like 2
LAMTOR5	XIP, HBXIP	late endosomal/lysosomal adaptor, MAPK and MTOR activator 5
RDX	DFNB24	radixin
STT3B	SIMP, CDG1X, STT3-B	STT3B, subunit of the oligosaccharyltransferase complex (catalytic)
CASK	CMG, LIN2, FGS4, TNRC8, MICPCH, MRXSNA, CAMGUK, CAGH39, RP11-540L11.1	calcium/calmodulin-dependent serine protein kinase (MAGUK family)
DNAJC16	RP4-680D5.1	DnaJ (Hsp40) homolog, subfamily C, member 16
ZDHC5	DHHC5, ZNF375	zinc finger, DHHC-type containing 5
PLD1	-	phospholipase D1, phosphatidylcholine-specific
CERS4	Trh1, LASS4	ceramide synthase 4
STK11	PJS, LKB1, hLKB1	serine/threonine kinase 11
RPS24	S24, DBA3, RP11-6P10.1	ribosomal protein S24
MGAT2	GNT2, CDG2A, CDGS2, GNT-II, GLCNACTII	mannosyl (alpha-1,6-)-glycoprotein beta-1,2-N-acetylglucosaminyltransferase
TRIP11	ACG1A, CEV14, TRIP230, TRIP-11, GMAP-210	thyroid hormone receptor interactor 11
CACHD1	RP4-655E10.1	cache domain containing 1
SPRY1	hSPRY1	sprouty homolog 1, antagonist of FGF signaling (Drosophila)
YKT6	-	YKT6 v-SNARE homolog (S. cerevisiae)
KCNQ5	Kv7.5, RP11-257K9.5	potassium voltage-gated channel, KQT-like subfamily, member 5
RAB35	RAY, RAB1C, H-ray	RAB35, member RAS oncogene family
CBR1	CBR, hCBR1, SDR21C1	carbonyl reductase 1
VPS26A	HB58, VPS26, PEP8A, Hbeta58	vacuolar protein sorting 26 homolog A (S. pombe)
WDR48	P80, UAF1, SPG60	WD repeat domain 48
MFS8	CLN7	major facilitator superfamily domain containing 8
SCD	SCD1, FADS5, SCDOS, PRO1933, MSTP008	stearoyl-CoA desaturase (delta-9-desaturase)
LPGAT1	NET8, FAM34A, FAM34A1	lysophosphatidylglycerol acyltransferase 1
PTPRG	PTPG, RPTPG, HPTPG, R-PTP-GAMMA	protein tyrosine phosphatase, receptor type, G
CLCN2	EGI3, CLC2, EJM6, ECA3, ECA2, EGMA, EJM8, cIC-2, EGI11, LKPAT, ... more	chloride channel, voltage-sensitive 2
CLPTM1L	CRR9	CLPTM1-like
PRKD3	PKD3, EPK2, PRKCN, PKC-NU, nPKC-NU	protein kinase D3
STIM1	GOK, TAM, TAM1, STRMK, IMD10, D11S4896E	stromal interaction molecule 1
RIC1	CIP150, KIAA1432, bA207C16.1	RAB6A GEF complex partner 1
CHMP7	-	charged multivesicular body protein 7
RPL23	L23, rpL17	ribosomal protein L23
CAMP	LL37, CRAMP, HSD26, CAP18, FALL39, CAP-18, FALL-39	cathelicidin antimicrobial peptide
GOPC	FIG, CAL, PIST, GOPC1, dj94G16.2	golgi-associated PDZ and coiled-coil motif containing
TLR4	TOLL, TLR-4, CD284, ARMD10	toll-like receptor 4
PDIA4	ERP72, ERP70, ERp-72	protein disulfide isomerase family A, member 4
EMC2	TTC35, KIAA0103	ER membrane protein complex subunit 2
ATP2B1	PMCA1, PMCA1kb	ATPase, Ca++ transporting, plasma membrane 1
DHCR7	SLOS	7-dehydrocholesterol reductase
GPR89A	GPHR, SH120, GPR89, UNQ192, GPR89B,	G protein-coupled receptor 89A

	RP11-373C9.3	
CABLES1	IK3-1, CABL1, CABLES, HsT2563	Cdk5 and Abl enzyme substrate 1
ROR2	BDB, BDB1, NTRKR2, RP11-818.2	receptor tyrosine kinase-like orphan receptor 2
MYADM	SB135, UNQ553/PRO1110	myeloid-associated differentiation marker
RP2	XRP2, NME10, TBCCD2, NM23-H10, DELXp11.3	retinitis pigmentosa 2 (X-linked recessive)
PLCB1	PLC-I, EIEE12, PLCB1B, PLC154, PLCB1A, PI-PLC, PLC-154, RP4-654A7.1	phospholipase C, beta 1 (phosphoinositide-specific)
SLC27A4	IPS, FATP4, ACSVL4, RP11-339B21.7	solute carrier family 27 (fatty acid transporter), member 4
PIK3CB	PI3K, PIK3C1, P110BETA, PI3KBETA	phosphatidylinositol-4,5-bisphosphate 3-kinase, catalytic subunit beta
ABCC3	MLP2, MRP3, ABC31, cMOAT2, MOAT-D, EST90757	ATP-binding cassette, sub-family C (CFTR/MRP), member 3
SPTLC2	LCB2, SPT2, LCB2A, HSN1C, NSAN1C, hLCB2a	serine palmitoyltransferase, long chain base subunit 2
ITFG3	gs19, C16orf9	integrin alpha FG-GAP repeat containing 3
BCAP31	CDM, DDCH, BAP31, 6C6-AG, DXS1357E	B-cell receptor-associated protein 31
VANGL1	STB2, LPP2, STBM2, KITENIN	VANGL planar cell polarity protein 1
FKBP8	FKBP38, FKBP38	FK506 binding protein 8, 38kDa
KIAA1244	BIG3, A7322, C6orf92, PPP1R33, ARFGEF3, dj171N11.1, RP1-171N11.1	KIAA1244
TOR4A	C9orf167, RP13-122B23.4	torsin family 4, member A
EHD4	PAST4, FKSG7	EH-domain containing 4
SIGLEC9	CD329, CDw329, FOAP-9, siglec-9, OBBP-LIKE, UNQ668/PRO1302	sialic acid binding Ig-like lectin 9
CKAP4	p63, ERGIC-63, CLIMP-63	cytoskeleton-associated protein 4
USE1	P31, D12, SLT1, MDS032	unconventional SNARE in the ER 1 homolog (<i>S. cerevisiae</i>)
SLC26A6	-	solute carrier family 26 (anion exchanger), member 6
PHACTR4	PPP1R124, RP11-442N24_A.1	phosphatase and actin regulator 4
SRPR	DP, Sralpha	signal recognition particle receptor (docking protein)
AGPAT9	MAG1, GPAT3, AGPAT8, HMFN0839, AGPAT10, LPAAT-theta	1-acylglycerol-3-phosphate O-acyltransferase 9
ANO6	SCTS, BDPLT7, TMEM16F	anoctamin 6
DST	DT, BPA, DMH, EBSB2, MACF2, HSAN6, BP240, BPAG1, CATX15, CATX-15, ... more	dystonin
HAVCR1	TIM, KIM1, TIM1, KIM-1, TIM-1, HAVCR, TIMD1, TIMD-1, HAVCR-1	hepatitis A virus cellular receptor 1
THEM6	DSCD75, C8orf55, PSEC0098	thioesterase superfamily member 6
SREBF1	SREBP1, bHLHd1, SREBP-1c	sterol regulatory element binding transcription factor 1
ZFPL1	MCG4, D11S750	zinc finger protein-like 1
STIM2	-	stromal interaction molecule 2
RFTN1	PIG9, MIG2, PIB10, RAFTLIN	raftlin, lipid raft linker 1
PRKCO	PRKCT, nPKC-theta, RP11-563J2.1	protein kinase C, theta
TRAPPC12	TTC15, TTC-15, CGI-87	trafficking protein particle complex 12
TAPT1	CMVFR	transmembrane anterior posterior transformation 1
USP32	USP10, NY-REN-60	ubiquitin specific peptidase 32
DHCR24	DCE, SELADIN1, seladin-1, Nbla03646	24-dehydrocholesterol reductase
APOA4	-	apolipoprotein A-IV
TMEM167A	TMEM167	transmembrane protein 167A
SLC33A1	AT1, AT-1, SPG42, ACATN, CCHLND	solute carrier family 33 (acetyl-CoA transporter), member 1
TBC1D22B	C6orf197, RP4-744I24.2	TBC1 domain family, member 22B
KTN1	CG1, KNT, MU-RMS-40.19	kinectin 1 (kinesin receptor)
KREMEN1	KRM1, KREMEN, CTA-57G9.2	kringle containing transmembrane protein 1

SLC12A4	KCC1	solute carrier family 12 (potassium/chloride transporter), member 4
MIF	GIF, GLIF, MMIF	macrophage migration inhibitory factor (glycosylation-inhibiting factor)
OSMR	PLCA1, OSMRB	oncostatin M receptor
TBL2	WBSCR13, WS-betaTRP, UNQ563/PRO1125	transducin (beta)-like 2
PGRMC2	DG6, PMBP	progesterone receptor membrane component 2
SEC22B	ERS-24, SEC22L1	SEC22 vesicle trafficking protein homolog B (<i>S. cerevisiae</i>) (gene/pseudogene)
FAM171B	NPD019, KIAA1946	family with sequence similarity 171, member B
LLGL1	HUGL, DLG4, LLGL, HUGL1, HUGL-1	lethal giant larvae homolog 1 (<i>Drosophila</i>)
WWOX	FOR, WOX1, FRA16D, SCAR12, HHCMA56, PRO0128, SDR41C1, D16S432E	WW domain containing oxidoreductase
EPHA4	SEK, HEK8, TYRO1	EPH receptor A4
DSTN	ADF, HEL32, ACTDP, bA462D18.2	dextrin (actin depolymerizing factor)
JUP	DP3, PDGB, PKGB, CTNNG, DPMIII, ARVD12	junction plakoglobin
SPATA5L1	-	spermatogenesis associated 5-like 1
EFNB2	HTKL, LERK5, Htk-L, EPLG5, RP11-272L14.1	ephrin-B2
FAM135A	KIAA1411, RP1-198I9.1	family with sequence similarity 135, member A
KIAA0195	TMEM94	KIAA0195
ANKS6	PKDR1, SAMD6, NPHP16, ANKRD14, RP11-207C11.3	ankyrin repeat and sterile alpha motif domain containing 6
DGKE	DGK, DAGK5, DAGK6, NPHS7	diacylglycerol kinase, epsilon 64kDa
CLPTM1	-	cleft lip and palate associated transmembrane protein 1
PPP1R15B	CREP	protein phosphatase 1, regulatory subunit 15B
CEACAM5	CEA, CD66e	carcinoembryonic antigen-related cell adhesion molecule 5
METTL7A	AAM-B, PRO0066	methyltransferase like 7A
DARS	HBSL, aspRS, PIG40	aspartyl-tRNA synthetase
TMEM33	SHINC3, 1600019D15Rik	transmembrane protein 33
TMEM230	HSPC274, C20orf30, dj1116H23.2.1, RP5-1116H23.2	transmembrane protein 230
OCLN	BLCPMG, PPP1R115, hCG_1988850	occludin
YIPF5	SMAP5, SB140, YIP1A, SMAP-5, FinGER5, PP12723	Yip1 domain family, member 5
CDK5RAP3	C53, IC53, LZAP, PP1553, MST016, HSF-27, MSTP016, OK/SW-cl.114	CDK5 regulatory subunit associated protein 3
GPR126	DREG, VIGR, APG1, PS1TP2	G protein-coupled receptor 126
FAT1	ME5, FAT, CDHR8, CDHF7, hFat1	FAT atypical cadherin 1
ERBB2	NGL, NEU, TKR1, HER2, CD340, HER-2, MLN19, HER-2/neu	erb-b2 receptor tyrosine kinase 2
USP6NL	RNTRE, TRE2NL, USP6NL-IT1, RP11-89C21.1	USP6 N-terminal like
CNP	CNP1	2',3'-cyclic nucleotide 3' phosphodiesterase
NDUFAF4	My013, C6orf66, HRPAP20, HSPC125, bA22L21.1	NADH dehydrogenase (ubiquinone) complex I, assembly factor 4
CNP	CNP1	2',3'-cyclic nucleotide 3' phosphodiesterase
NDUFAF4	My013, C6orf66, HRPAP20, HSPC125, bA22L21.1	NADH dehydrogenase (ubiquinone) complex I, assembly factor 4
CTSL	MEP, CATL, CTSL1, RP11-65B23.1	cathepsin L
PPP1R15B	CREP	protein phosphatase 1, regulatory subunit 15B
STX5	SED5, STX5A	syntaxin 5
TMEM51	C1orf72	transmembrane protein 51
ISOC1	CGI-111	isochorismatase domain containing 1
ATP2B4	MXRA1, PMCA4, ATP2B2, PMCA4b, PMCA4x	ATPase, Ca++ transporting, plasma membrane 4

CSPG4	NG2, MCSP, MCSPG, MSK16, HMW-MAA, MEL-CSPG	chondroitin sulfate proteoglycan 4
TRIM13	CAR, LEU5, RFP2, DLEU5, RNF77	tripartite motif containing 13
RICTOR	PIA, AVO3, hAVO3	RPTOR independent companion of MTOR, complex 2
PSMC1	S4, p56, P26S4	proteasome (prosome, macropain) 26S subunit, ATPase, 1
GOLGA7	GCP16, HSPC041, GOLGA7A, HDCKB03P, GOLGA3AP1	golgin A7
AXL	ARK, UFO, Tyro7, JTK11	AXL receptor tyrosine kinase
STX7	RP11-560I21.1	syntaxin 7
EARS2	MSE1, COXPD12	glutamyl-tRNA synthetase 2, mitochondrial
RPL35A	DBA5, L35A, GIG33	ribosomal protein L35a
MICAL2	MICAL-2, MICAL2PV2, MICAL2PV1	microtubule associated monooxygenase, calponin and LIM domain containing 2
MARK3	KP78, PAR1A, CTAK1, Par-1a	MAP/microtubule affinity-regulating kinase 3
RAC1	MIG5, Rac-1, TC-25, p21-Rac1	ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1)
ABCC1	MRP, MRP1, GS-X, ABCC, ABC29	ATP-binding cassette, sub-family C (CFTR/MRP), member 1
BTN3A2	BTF4, CD277, BT3.2, BTN3.2	butyrophilin, subfamily 3, member A2
SAR1B	ANDD, CMRD, SARA2, GTBPB	secretion associated, Ras related GTPase 1B
LSG1	-	large 60S subunit nuclear export GTPase 1
CANX	P90, CNX, IP90	calnexin
CBX5	HP1, HP1A, HEL25	chromobox homolog 5
EMC8	NOC4, COX4NB, C16orf4, C16orf2, FAM158B	ER membrane protein complex subunit 8
UGGT1	UGT1, HUGT1, UGCGL1	UDP-glucose glycoprotein glucosyltransferase 1
AMIGO2	ALI1, DEGA, AMIGO-2	adhesion molecule with Ig-like domain 2
ACP1	HAAP	acid phosphatase 1, soluble
RRBP1	hES, RRp, ES130, ES/130, RP11-462D18.3	ribosome binding protein 1
MARCKS	MACS, 80K-L, PKCSL, PRKCSL	myristoylated alanine-rich protein kinase C substrate
TMEM57	MACOILIN, RP3-469D22.2	transmembrane protein 57
EPPD1	HSPC107	endonuclease/exonuclease/phosphatase family domain containing 1
RAB1B	-	RAB1B, member RAS oncogene family
PRKD1	PKD, PKCM, PRKCM, PKC-MU	protein kinase D1
SLC7A6	LAT3, LAT-2, y+LAT-2	solute carrier family 7 (amino acid transporter light chain, y+L system), member 6
ALDH1B1	ALDH5, ALDHX	aldehyde dehydrogenase 1 family, member B1
SUSD5	-	sushi domain containing 5
FTSJ1	MRX9, JM23, SPB1, CDLIV, TRMT7, MRX44	FtsJ RNA methyltransferase homolog 1 (E. coli)
ACE2	ACEH, UNQ868/PRO1885	angiotensin I converting enzyme 2
SLC38A2	ATA2, SAT2, SNAT2, PRO1068	solute carrier family 38, member 2
CD209	CDSIGN, CLEC4L, DC-SIGN, DC-SIGN1	CD209 molecule
TMEM199	C17orf32	transmembrane protein 199
DDX21	GUA, GURDB, RH-II/GU, RH-II/GuA	DEAD (Asp-Glu-Ala-Asp) box helicase 21
ATP6AP2	PRR, RENR, M8-9, MRXE, XMRE, XPDS, HT028, MRXSH, ELDF10, MSTP009, ... more	ATPase, H+ transporting, lysosomal accessory protein 2
RPL18A	L18A	ribosomal protein L18a
RAB7A	RAB7, PRO2706	RAB7A, member RAS oncogene family
IFT80	ATD2, WDR56, SRTD2	intraflagellar transport 80
LDLRAD3	LRAD3	low density lipoprotein receptor class A domain containing 3

STBD1	GENX-3414, GENEX3414	starch binding domain 1
LATS2	KPM	large tumor suppressor kinase 2
PKN2	PRK2, STK7, PAK2, Pak-2, PRKCL2, PRO2042, RP5-905H16.1	protein kinase N2
MOSPD2	-	motile sperm domain containing 2
UBXN8	REP8, UBXD6, D8S2298E	UBX domain protein 8
CDSN	S, PSS, HTSS, PSS1, HYPT2, HTSS1, DADB-14104.5	corneodesmosin
GORASP2	p59, GRS2, GOLPH6, GRASP55	golgi reassembly stacking protein 2, 55kDa
SMPD4	NET13, NSMASE3, NSMASE-3	sphingomyelin phosphodiesterase 4, neutral membrane (neutral sphingomyelinase-3)
HMGN2	HMG17	high mobility group nucleosomal binding domain 2
ITGA3	VL3A, MSK18, GAPB3, CD49C, ILNEB, VLA3a, VCA-2, GAP-B3	integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor)
SCARB1	SRB1, CLA1, CLA-1, SR-BI, CD36L1, HDLQTL6	scavenger receptor class B, member 1
ANO10	SCAR10, TMEM16K	anoctamin 10
ATP13A3	AFURS1	ATPase type 13A3
PIIB	OI9, CYPB, SCYLP, CYP-S1, HEL-S-39	peptidylprolyl isomerase B (cyclophilin B)
ABCC4	MRP4, MOATB, MOAT-B, RP11-74A12.1	ATP-binding cassette, sub-family C (CFTR/MRP), member 4
ACBD5	RP11-85G18.5	acyl-CoA binding domain containing 5
USP33	VDU1	ubiquitin specific peptidase 33
EPHA3	ETK, EK4, HEK, ETK1, HEK4, TYRO4	EPH receptor A3
STK11P	LIP1, LKB1IP, STK11IP1	serine/threonine kinase 11 interacting protein
SH2B2	APS	SH2B adaptor protein 2
NRP1	NRP, NP1, CD304, BDCA4, VEGF165R, RP11-342D11.1	neuropilin 1
PRKCI	PKCI, DXS1179E, nPKC-iota	protein kinase C, iota
WDR18	Ipi3, R32184_1	WD repeat domain 18
CCDC8	p90, 3M3, PPP1R20	coiled-coil domain containing 8
ADAM10	kuz, RAK, MADM, AD18, AD10, CD156c, HsT18717	ADAM metallopeptidase domain 10
NME1	NB, NBS, AWD, NM23, NDKA, GAAD, NDPKA, NDPK-A, NM23-H1	NME/NM23 nucleoside diphosphate kinase 1
ALCAM	MEMD, CD166	activated leukocyte cell adhesion molecule
WFS1	WFS, WFSL, WFRS, CTRCT41	Wolfram syndrome 1 (wolframin)
ADAM9	MDC9, MCMP, CORD9, Mltng	ADAM metallopeptidase domain 9
EPHA2	ECK, CTPA, CTPP1, ARCC2, CTRCT6	EPH receptor A2
MARK2	EMK1, Par1b, EMK-1, PAR-1, Par-1b	MAP/microtubule affinity-regulating kinase 2
CLPS	-	colipase, pancreatic
EIF2AK3	PEK, WRS, PERK	eukaryotic translation initiation factor 2-alpha kinase 3
ABCF1	ABC27, ABC50, DADB-129D20.7	ATP-binding cassette, sub-family F (GCN20), member 1
CTDSP2	OS4, SCP2, PSR2	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 2
MSN	HEL70	moesin
PDE3B	HcGIP1, cGIPDE1	phosphodiesterase 3B, cGMP-inhibited
CD33	p67, SIGLEC3, SIGLEC-3	CD33 molecule
RPS27L	-	ribosomal protein S27-like
SLC26A2	DTD, EDM4, DTDST, MST153, D5S1708, MSTP157	solute carrier family 26 (anion exchanger), member 2
SLC25A17	PMP34, RP3-362J20.2	solute carrier family 25 (mitochondrial carrier; peroxisomal membrane protein, 34kDa), member 17
RABL3	-	RAB, member of RAS oncogene family-like

		3
TMX2	PIG26, CGI-31, PDIA12, TXNDC14	thioredoxin-related transmembrane protein 2
ELOVL7	-	ELOVL fatty acid elongase 7
NEDD4L	RSP5, NEDD4.2, NEDD4-2, hNEDD4-2	neural precursor cell expressed, developmentally down-regulated 4-like, E3 ubiquitin protein ligase
STT3A	TMC, ITM1, STT3-A	STT3A, subunit of the oligosaccharyltransferase complex (catalytic)
FAAH	PSAB, FAAH-1	fatty acid amide hydrolase
TNIK	-	TRAF2 and NCK interacting kinase
POR	CPR, CYPOR, P450R	P450 (cytochrome) oxidoreductase
ACSL3	ACS3, FAFL3, PRO2194	acyl-CoA synthetase long-chain family member 3
MPP7	RP11-218D6.5	membrane protein, palmitoylated 7 (MAGUK p55 subfamily member 7)
PDZD8	PDZK8	PDZ domain containing 8
ROCK1	ROCK-I, P160ROCK	Rho-associated, coiled-coil containing protein kinase 1
ATP6AP1	CF2, 16A, Ac45, XAP3, XAP-3, VATPS1, ATP6S1, ATP6IP1, XX-FW83563B9.4	ATPase, H ⁺ transporting, lysosomal accessory protein 1
RPL36AL	RPL36A	ribosomal protein L36a-like
A2M	A2MD, FWP007, CPAMD5, S863-7	alpha-2-macroglobulin
RPL28	L28	ribosomal protein L28
HGS	HRS	hepatocyte growth factor-regulated tyrosine kinase substrate
ALDH3A2	SLS, FALDH, ALDH10	aldehyde dehydrogenase 3 family, member A2
TRIM4	RNF87	tripartite motif containing 4
FURIN	FUR, PACE, SPC1, PCSK3	furin (paired basic amino acid cleaving enzyme)
GOSR1	P28, GS28, GOS28, GOS-28, GOLIM2, GOS28/P28	golgi SNAP receptor complex member 1
TUSC3	M33, N33, MRT7, MRT22, OST3A, D8S1992	tumor suppressor candidate 3
CPOX	CPX, HCP, CPO	coproporphyrinogen oxidase
ST7	RAY1, TSG7, HELG, SEN4, ETS7q, FAM4A, FAM4A1	suppression of tumorigenicity 7
IKBIP	IKIP	IKBKB interacting protein
PCDH9	RP11-335P18.3	protocadherin 9
KIAA1549	-	KIAA1549
MPZL1	PZR, PZRa, PZRb, PZR1b, MPZL1b, RP1-313L4.1	myelin protein zero-like 1
HNRNPU	HNRNPU, SAF-A, U21.1, hnRNP U, RP11-11N7.3	heterogeneous nuclear ribonucleoprotein U (scaffold attachment factor A)
NT5C3A	p36, PSN1, POMP, PN-I, UMPH, hUMP1, NT5C3, UMPH1, P5N-1, cN-III, ... more	5'-nucleotidase, cytosolic IIIA
SDF2L1	UNQ1941/PRO4424	stromal cell-derived factor 2-like 1
RHBDF2	TEC, TOC, TOCG, RHBDL5, RHBDL6, iRhom2	rhomboid 5 homolog 2 (Drosophila)
PREB	SEC12	prolactin regulatory element binding
PTPN14	PEZ, PTP36, RP11-176D17.1	protein tyrosine phosphatase, non-receptor type 14
TRPM4	TRPM4B, PFHB1B	transient receptor potential cation channel, subfamily M, member 4
PTGR1	PGR1, ZADH3, LTB4DH, RP11-16L21.1	prostaglandin reductase 1
STEAP3	STMP3, TSAP6, AHMIO2, dudlin-2	STEAP family member 3, metalloredutase
MTR	MS, HMAG, cbIG	5-methyltetrahydrofolate-homocysteine methyltransferase
PTPRJ	SCC1, DEP1, CD148, HPTPeta, R-PTP-ETA	protein tyrosine phosphatase, receptor type, J
CLDN1	CLD1, SEMP1, ILVASC, UNQ481/PRO944	claudin 1

S1PR3	S1P3, EDG3, LPB3, EDG-3	sphingosine-1-phosphate receptor 3
ITGB1	CD29, VLAB, FNBR, MDF2, MSK12, GPIIA, VLA-BETA, RP11-479G22.2	integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)
FLRT3	HH21, UNQ856/PRO1865	fibronectin leucine rich transmembrane protein 3
DPP4	CD26, ADCP2, TP103, DPPIV, ADABP	dipeptidyl-peptidase 4
SFTPD	SP-D, SFTP4, PSP-D, COLEC7	surfactant protein D
RAB27B	C25KG	RAB27B, member RAS oncogene family
PPP1R9A	NRBI, NRB1, Neurabin-I	protein phosphatase 1, regulatory subunit 9A
BUB3	hBUB3, BUB3L	BUB3 mitotic checkpoint protein
VPS13C	-	vacuolar protein sorting 13 homolog C (S. cerevisiae)
GPRIN3	GRIN3	GPRIN family member 3
SLC2A1	PED, GLUT, DYT9, HTLVR, DYT17, DYT18, EIG12, GLUT1, GLUT-1, GLUT1DS	solute carrier family 2 (facilitated glucose transporter), member 1
LAMTOR2	p14, ENDAP, ROBLD3, MAPBPIP, HSPC003, MAPKSP1AP, Ragulator2, RP11-336K24.9	late endosomal/lysosomal adaptor, MAPK and MTOR activator 2
PTPN1	PTP1B	protein tyrosine phosphatase, non-receptor type 1
GGCT	GGC, GCTG, CRF21, C7orf24	gamma-glutamylcyclotransferase
ARF4	ARF2	ADP-ribosylation factor 4
ERICH5	C8orf47	glutamate-rich 5
TMEM109	-	transmembrane protein 109
ABCA3	ABC3, ABC-C, SMDP3, LBM180, EST111653	ATP-binding cassette, sub-family A (ABC1), member 3
TMEM263	C12orf23	transmembrane protein 263
TMEM30A	CDC50A, C6orf67	transmembrane protein 30A
ZDHC8	DHHC8, ZNF378, ZDHC1	zinc finger, DHHC-type containing 8
PARP16	pART15, ARTD15, C15orf30	poly (ADP-ribose) polymerase family, member 16
CXADR	CAR, HCAR, CAR4/6	coxsackie virus and adenovirus receptor
SLC20A2	PIT2, RAM1, IBGC1, IBGC3, PIT-2, GLVR2, MLVAR, GLVR-2	solute carrier family 20 (phosphate transporter), member 2
VANGL2	LPP1, STB1, STBM, LTAP, STBM1	VANGL planar cell polarity protein 2
EBP	CPX, CHO2, CPXD, CDPX2	emopamil binding protein (sterol isomerase)
RINT1	RINT-1	RAD50 interactor 1
TFRC	T9, TR, p90, TFR, TFR1, CD71, TRFR	transferrin receptor
KIAA1804	MLK4, dj862P8.3, RP5-862P8.2	mixed lineage kinase 4
NUP210	GP210, POM210, PSEC0245	nucleoporin 210kDa
DSG2	HDGC, CDHF5, ARVC10, CMD1BB, ARVD10	desmoglein 2
IMMT	P89, HMP, P87, PIG4, PIG52, P87/89, MINOS2	inner membrane protein, mitochondrial
CLEC4M	LSIGN, CD299, CD209L, L-SIGN, DCSIGNR, HP10347, DC-SIGNR, DC-SIGN2	C-type lectin domain family 4, member M
CLEC4G	UNQ431, LP2698, LSEctin, DTTR431, UNQ431/PRO792	C-type lectin domain family 4, member G
AKT2	PKBB, PRKBB, HIHGH, PKBBETA, RAC-BETA	v-akt murine thymoma viral oncogene homolog 2
TM9SF4	dj836N17.2, RP5-836N17.2	transmembrane 9 superfamily protein member 4
ISCA1	ISA1, HBLD2, GK004, hIscA	iron-sulfur cluster assembly 1
SNAP47	SVAP1, HEL170, SNAP-47, C1orf142, RP5-870F10.2	synaptosomal-associated protein, 47kDa
KIAA0391	MRPP3, PRORP	KIAA0391
DCBLD1	dj94G16.1, RP1-94G16.1	discoidin, CUB and LCCL domain containing 1
FRS2	SNT, SNT1, FRS2A, SNT-1, FRS2alpha	fibroblast growth factor receptor substrate 2
UBE4A	E4, UFD2, UBOX2	ubiquitination factor E4A

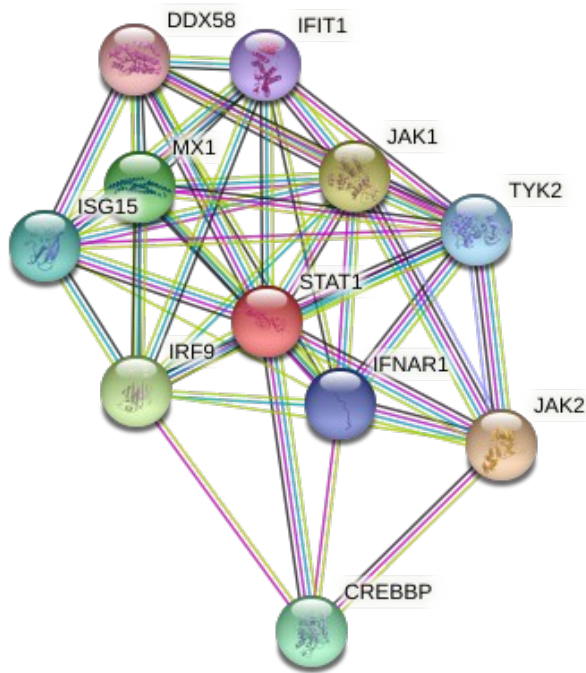
TMPRSS2	PRSS10, PP9284	transmembrane protease, serine 2
TMA7	CCDC72, HSPC016	translation machinery associated 7 homolog (<i>S. cerevisiae</i>)
PLEKHM3	DAPR, PLEKHM1L	pleckstrin homology domain containing, family M, member 3
DEGS1	MLD, DEGS, DES1, Des-1, MIG15, FADS7, DEGS-1	delta(4)-desaturase, sphingolipid 1
FNDC3A	HUGO, FNDC3, bA203I16.5, bA203I16.1, RP11-203I16.5	fibronectin type III domain containing 3A
RPS3	S3, OK/SW-cl.26	ribosomal protein S3
BNIP1	TRG8, NIP1, SEC20, TRG-8	BCL2/adenovirus E1B 19kDa interacting protein 1
KIRREL	NEPH1, RP11-444M10.2	kin of IRRE like (<i>Drosophila</i>)
LPCAT1	AYTL2, lpcat, PFAAP3	lysophosphatidylcholine acyltransferase 1
CTSS	-	cathepsin S
MET	HGFR, c-Met, RCCP2, AUTS9	MET proto-oncogene, receptor tyrosine kinase
CYP4F11	CYPIVF11	cytochrome P450, family 4, subfamily F, polypeptide 11
MIA3	ARNT, D320, TANGO, TANGO1, UNQ6077, RP11-378J18.4	melanoma inhibitory activity family, member 3
MSMP	PSMP	microseminoprotein, prostate associated
SLC3A2	4F2, MDU1, CD98, 4T2HC, 4F2HC, NACAE, CD98HC	solute carrier family 3 (amino acid transporter heavy chain), member 2
CTNNA1	CAP102	catenin (cadherin-associated protein), alpha 1, 102kDa
DHRS3	SDR1, RsdR1, RDH17, DD83.1, SDR16C1, retSDR1, RP11-514N2.1	dehydrogenase/reductase (SDR family) member 3
CTSB	APPS, CPSB	cathepsin B
TMEM201	NET5, RP13-15M17.2	transmembrane protein 201
LMNA	FPL, IDC, LFP, HGPS, LDP1, FPLD, LMNC, EMD2, PRO1, CDDC, ... more	lamin A/C
PIPSL	PSMD4P2, PIP5K1L1, PIP5K1P3, bA429H9.1, RP11-429H9.6	PIP5K1A and PSMD4-like, pseudogene
SPCS1	SPC1, SPC12, HSPC033, YJR010C-A	signal peptidase complex subunit 1 homolog (<i>S. cerevisiae</i>)
NDUFS2	CI-49	NADH dehydrogenase (ubiquinone) Fe-S protein 2, 49kDa (NADH-coenzyme Q reductase)
YES1	Yes, c-yes, HsT441, P61-YES	YES proto-oncogene 1, Src family tyrosine kinase
TMEM205	UNQ501, UNQ501/PRO1018	transmembrane protein 205
RAB14	FBP, RAB-14, RP11-165P4.4	RAB14, member RAS oncogene family
TRPM7	CHAK, CHAK1, ALSPDC, LTRPC7, LTrpC-7, TRP-PLIK	transient receptor potential cation channel, subfamily M, member 7
TLL12	dJ526I14.2	tubulin tyrosine ligase-like family, member 12
HSPA5	BIP, MIF2, GRP78, HEL-S-89n	heat shock 70kDa protein 5 (glucose-regulated protein, 78kDa)
SLC16A1	MCT, HHF7, MCT1, MCT1D, RP4-580L15.1	solute carrier family 16 (monocarboxylate transporter), member 1
C10RF21	PIG13, RP4-768P8.1	chromosome 1 open reading frame 21
PNPLA6	sws, NTE, BNHS, SPG39, NTEMND, iPLA2delta	patatin-like phospholipase domain containing 6
UBE2J1	UBC6, Ubc6p, NCUBE1, CGI-76, HSPC205, HSPC153, NCUBE-1, HSU93243	ubiquitin-conjugating enzyme E2, J1
ELOVL4	ADMD, SCA34, CT118, ISQMR, STGD3, STGD2	ELOVL fatty acid elongase 4
PTRE	CGL4, CAVIN, FKSG13, CAVIN1, cavin-1	polymerase I and transcript release factor
ZDHHC20	DHHC-20, 4933421L13Rik	zinc finger, DHHC-type containing 20
PACSN3	SDPIII	protein kinase C and casein kinase substrate in neurons 3

CYP51A1	LDM, CP51, CYP51, CYPL1, P450L1, P450-14DM	cytochrome P450, family 51, subfamily A, polypeptide 1
ARHGAP1	RHOGAP, RHOGAP1, CDC42GAP, p50rhoGAP	Rho GTPase activating protein 1
TMEM209	NET31	transmembrane protein 209
VPS16	hVPS16, RP11-12M19.2	vacuolar protein sorting 16 homolog (S. cerevisiae)
CD207	CLEC4K	CD207 molecule, langerin
SOAT1	STAT, ACAT, SOAT, ACAT1, AACT, ACAT-1, RP11-215I23.1	sterol O-acyltransferase 1
PDXDC1	LP8165	pyridoxal-dependent decarboxylase domain containing 1
MARC2	MOSC2, RP11-270A6.1	mitochondrial amidoxime reducing component 2
TOLLIP	IL-1RAcPIP	toll interacting protein
IDE	INSULYSIN, RP11-366I13.1	insulin-degrading enzyme
CYB5A	MCB5, CYB5	cytochrome b5 type A (microsomal)
OBSL1	-	obscurin-like 1
CEACAM7	CEA, CGM2	carcinoembryonic antigen-related cell adhesion molecule 7
EZR	CVL, VIL2, CVIL, HEL-S-105	ezrin
PLXNA1	NOV, NOV, PLXN1, PLEXIN-A1	plexin A1
STX18	GIG9, Ufe1	syntaxin 18
FDFT1	SS, SQS, DGPT, ERG9	farnesyl-diphosphate farnesyltransferase 1
TMEM131	RW1, CC28, YR-23, PRO1048	transmembrane protein 131
BSG	OK, M6, 5F7, TCSF, CD147, EMMPRIN, UNQ6505/PRO21383	basigin (Ok blood group)
ATP6V0A1	a1, Stv1, VPP1, Vph1, ATP6N1, ATP6N1A	ATPase, H ⁺ transporting, lysosomal V0 subunit a1
ROBO2	SAX3	roundabout, axon guidance receptor, homolog 2 (Drosophila)
EMD	STA, EDMD, LEMD5, XX-FW88778H2.1	emerin
DLG1	hdlg, SAP97, DLGH1, SAP-97, dj1061C18.1.1	discs, large homolog 1 (Drosophila)
HIST1H2AC	H2AFL, H2A/I, dj221C16.4	histone cluster 1, H2ac
ZDHHC17	HYPH, HIP3, HIP14, HSPC294	zinc finger, DHHC-type containing 17
EPB41L4B	CG1, EHM2	erythrocyte membrane protein band 4.1 like 4B
ROR1	NTRKR1, dj537F10.1, RP11-24J23.1	receptor tyrosine kinase-like orphan receptor 1
ATP1A1	RP4-655J12.1	ATPase, Na ⁺ /K ⁺ transporting, alpha 1 polypeptide
LEMD3	MAN1	LEM domain containing 3
TMEM192	-	transmembrane protein 192
ADD3	ADDL, RP11-252O7.3	adducin 3 (gamma)
NEK7	-	NIMA-related kinase 7
TBC1D10A	EPI64, TBC1D10, dj130H16.2, dj130H16.1	TBC1 domain family, member 10A
TYW1	TYW1A, RSAFD1, YPL207W	tRNA-yW synthesizing protein 1 homolog (S. cerevisiae)
OSBPL11	ORP11, ORP-11, OSBP12, TCCIA00292	oxysterol binding protein-like 11
PMPCB	P-52, MPPB, MPP11, MPPP52, Beta-MPP	peptidase (mitochondrial processing) beta
VMPI1	EPG3, TANGO5, TMEM49, HSPC292	vacuole membrane protein 1
MBOAT7	BB1, LRC4, MBOA7, OACT7, LPIAT, LENG4, hMBOA-7, XXbac-BCX105G6.4	membrane bound O-acyltransferase domain containing 7
CLGN	-	calmegin
SRC	ASV, SRC1, c-SRC, p60-Src, RP5-823N20.1	SRC proto-oncogene, non-receptor tyrosine kinase
MCM5	CDC46, P1-CDC46, RP5-824I19_A.1	minichromosome maintenance complex component 5
PIIA	CYPA, CYPH, HEL-S-69p	peptidylprolyl isomerase A (cyclophilin A)
VPS33B	-	vacuolar protein sorting 33 homolog B (yeast)

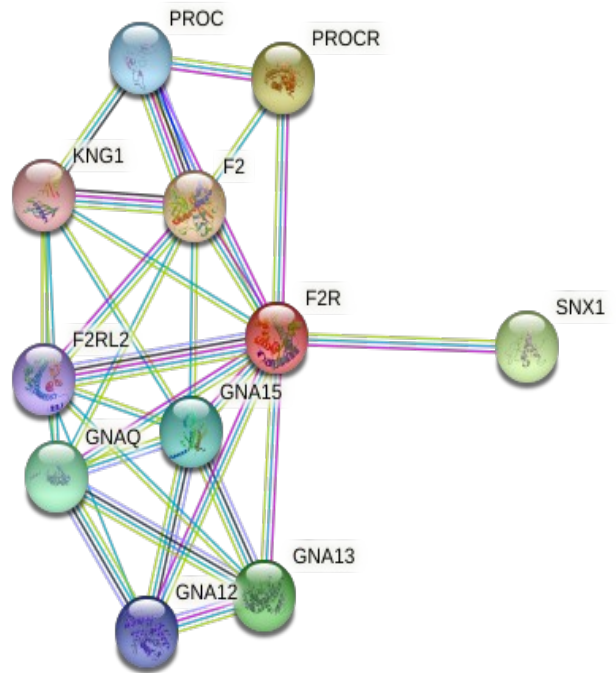
EMC1	PSEC0263, KIAA0090	ER membrane protein complex subunit 1
FAM129B	OC58, MEG-3, MINERVA, C9orf88, bA356B19.6, RP11-356B19.6	family with sequence similarity 129, member B
ACAA2	DSAEC	acetyl-CoA acyltransferase 2
TMEM214	PP446	transmembrane protein 214
CLN8	EMPR, C8orf61	ceroid-lipofuscinosis, neuronal 8 (epilepsy, progressive with mental retardation)
LRRC59	p34, PRO1855	leucine rich repeat containing 59
SEC11A	SPC18, SPCS4A, sid2895, SEC11L1, 1810012E07Rik	SEC11 homolog A (S. cerevisiae)
NDC1	NET3, TMEM48, RP4-654H19.1	NDC1 transmembrane nucleoporin
NIPSNAP1	-	nipsnap homolog 1 (C. elegans)
PCDH7	BHPCDH, BH-Pcdh, PPP1R120	protocadherin 7
SLC39A14	cig19, NET34, ZIP14, LZT-Hs4	solute carrier family 39 (zinc transporter), member 14
TIAM1	-	T-cell lymphoma invasion and metastasis 1
BET1	HBET1	Bet1 golgi vesicular membrane trafficking protein
AGPAT6	LPAATZ, TSARG7, 1-AGPAT 6, LPAAT-zeta, UNQ551/PRO1108	1-acylglycerol-3-phosphate O-acyltransferase 6
SPINT2	PB, Kop, HAI2, HAI-2, DIAR3	serine peptidase inhibitor, Kunitz type, 2
MRC1	MMR, CD206, MRC1L1, CLEC13D, CLEC13DL, bA541I19.1, RP11-457D2.1	mannose receptor, C type 1
ATP7A	MK, MNK, SMAX3, DSMAX, RP3-465G10.1	ATPase, Cu++ transporting, alpha polypeptide
ROBO1	SAX3, DUTT1	roundabout, axon guidance receptor, homolog 1 (Drosophila)
ZDHHC14	NEW1CP, RP3-481C9.1	zinc finger, DHHC-type containing 14
DNAJC1	MTJ1, HTJ1, ERdj1, DNAJL1, RP11-399C16.1	DnaJ (Hsp40) homolog, subfamily C, member 1
HLA-C	HLC-C, PSORS1, D6S204, HLA-JY3, XXbac-BCX101P6.2	major histocompatibility complex, class I, C
SLC29A1	ENT1	solute carrier family 29 (equilibrative nucleoside transporter), member 1
SLC30A9	ZNT9, HUEL, GAC63, C4orf1	solute carrier family 30 (zinc transporter), member 9
CAMLG	CAML	calcium modulating ligand
BRI3BP	KG19, BNAS1, HCCR-1, HCCR-2, HCCRBP-1	BRI3 binding protein
ACBD3	PAP7, GCP60, GOCAP1, GOLPH1	acyl-CoA binding domain containing 3
EGFR	ERBB, HER1, mENA, PIG61, ERBB1, NISBD2	epidermal growth factor receptor
VMA21	MEAX, XMEA	VMA21 vacuolar H+-ATPase homolog (S. cerevisiae)
WDR20	DMR	WD repeat domain 20
LMAN1	MR60, gp58, F5F8D, FMFD1, MCFD1, ERGIC53, ERGIC-53	lectin, mannose-binding, 1
TMEM2	RP11-52I12.1	transmembrane protein 2
FMN2	RP11-90L13.1	formin 2
DHRS7	CGI-86, retDSR4, retSDR4, SDR34C1	dehydrogenase/reductase (SDR family) member 7
SYNE2	NUA, TROPH, Nesp2, EDMD5, NUANCE, SYNE-2, Nesprin-2	spectrin repeat containing, nuclear envelope 2
ILVBL	AHAS, 209L8, ILV2H	ilvB (bacterial acetolactate synthase)-like
HMGCR	LDLCQ3	3-hydroxy-3-methylglutaryl-CoA reductase
EPHX1	MEH, HYL1, EPOX, EPHX	epoxide hydrolase 1, microsomal (xenobiotic)
COPG1	COPG	coatamer protein complex, subunit gamma 1
CDH1	UVO, CDHE, ECAD, LCAM, Arc-1, CD324	cadherin 1, type 1, E-cadherin (epithelial)
NBAS	NAG, SOPH	neuroblastoma amplified sequence
ABCG2	MRX, MXR, BCRP, ABCP, MXR1, BMDP, BCRP1, ABC15, GOUT1, CD338, ... more	ATP-binding cassette, sub-family G (WHITE), member 2 (Junior blood group)
SLC27A3	FATP3, VLCS-3, ACSVL3, PSEC0067	solute carrier family 27 (fatty acid)

		transporter), member 3
ATP13A1	ATP13A, CGI-152	ATPase type 13A1
C19ORF26	DOS	chromosome 19 open reading frame 26
PKP2	ARVD9	plakophilin 2
PIP5K1A	RP11-68I18.9	phosphatidylinositol-4-phosphate 5-kinase, type I, alpha
CDC42EP1	CEP1, MSE55, BORG5, RP5-1177I5.4	CDC42 effector protein (Rho GTPase binding) 1
SPCS3	SPC3, PRO3567, YLR066W, SPC22/23, UNQ1841/PRO3567	signal peptidase complex subunit 3 homolog (S. cerevisiae)
STEAP1	STEAP, PRSS24, tcag7.1170	six transmembrane epithelial antigen of the prostate 1
ILDR2	C1orf32, dj782G3.1, RP4-782G3.2	immunoglobulin-like domain containing receptor 2
ASGR1	HL-1, ASGPR, ASGPR1, CLEC4H1	asialoglycoprotein receptor 1
CLCC1	MCLC, RP11-475E11.6	chloride channel CLIC-like 1
MDFIC	HIC	MyoD family inhibitor domain containing
SLC12A6	KCC3, ACCPN, KCC3B, KCC3A	solute carrier family 12 (potassium/chloride transporter), member 6
E124	PIG8, EPG4, TP53I8	etoposide induced 2.4
GOSR2	EPM6, GS27, Bos1	golgi SNAP receptor complex member 2
FAM134B	JK1, JK-1	family with sequence similarity 134, member B
CNTN1	F3, MYPCN, GP135	contactin 1
TM9SF3	SMBP, EP70-P-iso, RP11-34E5.1	transmembrane 9 superfamily member 3
FIBP	FGFIBP, FIBP-1	fibroblast growth factor (acidic) intracellular binding protein
VEZT	VEZATIN	vezatin, adherens junctions transmembrane protein
SFN	YWHAS	stratifin
AREL1	KIAA0317	apoptosis resistant E3 ubiquitin protein ligase 1
PTPN9	MEG2, PTPMEG2	protein tyrosine phosphatase, non-receptor type 9
GPRC5C	RAIG3, RAIG-3, PSEC0087	G protein-coupled receptor, class C, group 5, member C
UCHL1	PGP95, PARK5, NDGOA, PGP9.5, Uch-L1, HEL-117, PGP 9.5	ubiquitin carboxyl-terminal esterase L1 (ubiquitin thiolesterase)
TMX1	TMX, TXNDC, TXNDC1, PDIA11, PSEC0085	thioredoxin-related transmembrane protein 1
DDOST	OST, WBP1, CDG1R, OST48, AGER1, OKSWcl45, OK/SW-cl.45	dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit (non-catalytic)
TENM3	ODZ3, TNM3, Ten-m3, MCOPCB9	teneurin transmembrane protein 3
RRAGC	RAGC, GTR2, TIB929	Ras-related GTP binding C
ITCH	AIF4, AIP4, ADMFD, NAPP1, dj468O1.1	itchy E3 ubiquitin protein ligase
NISCH	I-1, IR1, IRAS, hIRAS	nischarin
NIPSNAP1	-	nipsnap homolog 1 (C. elegans)

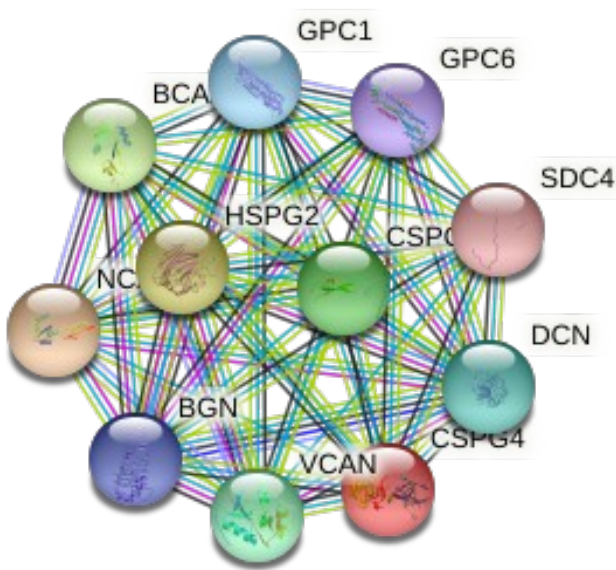
Representación de las interacciones moleculares de las proteínas que comparten epítopes de gp S de SARS-CoV-2, según STRING (<https://string-db.org/>)



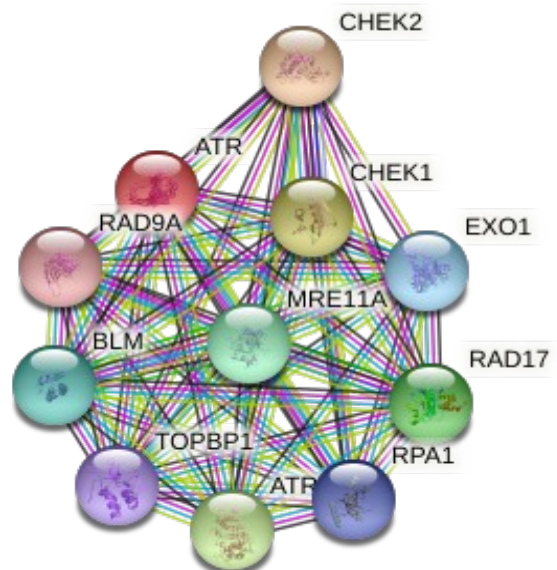
Interacciones de STAT1



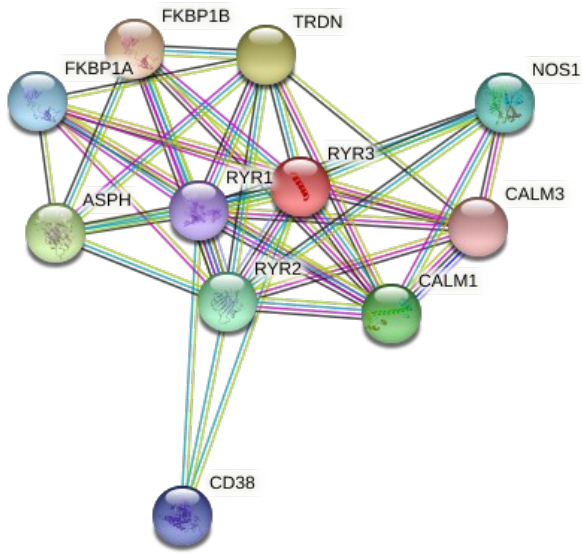
Interacciones de F2R



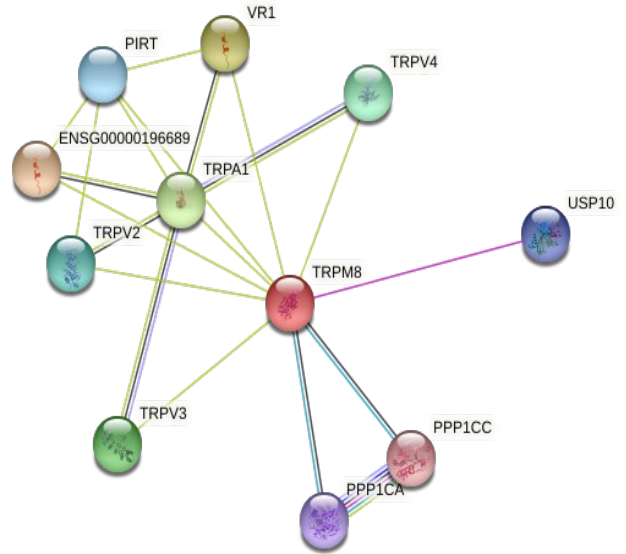
Interacciones de CSPG4



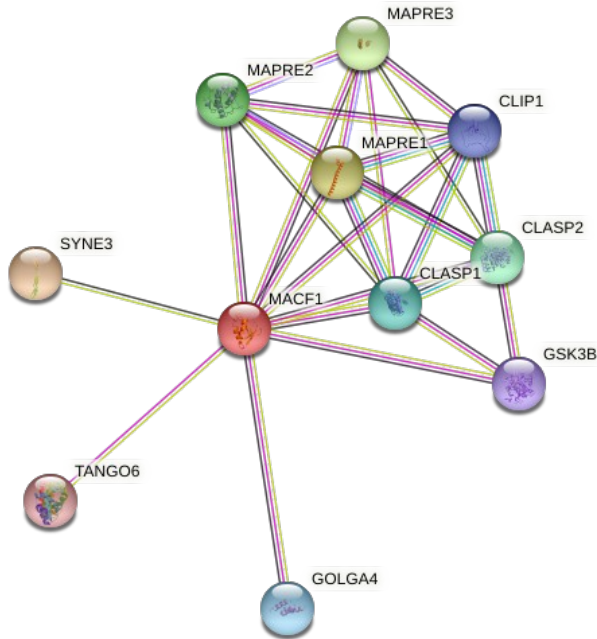
Interacciones de ATR



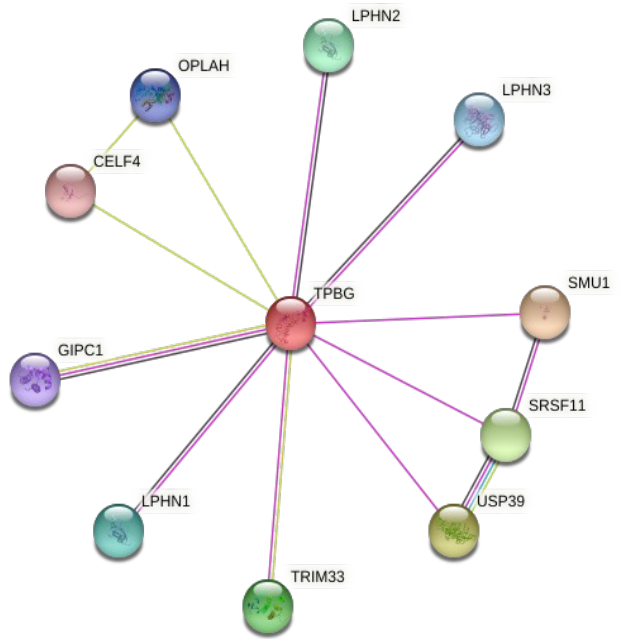
Interacciones de RYR3



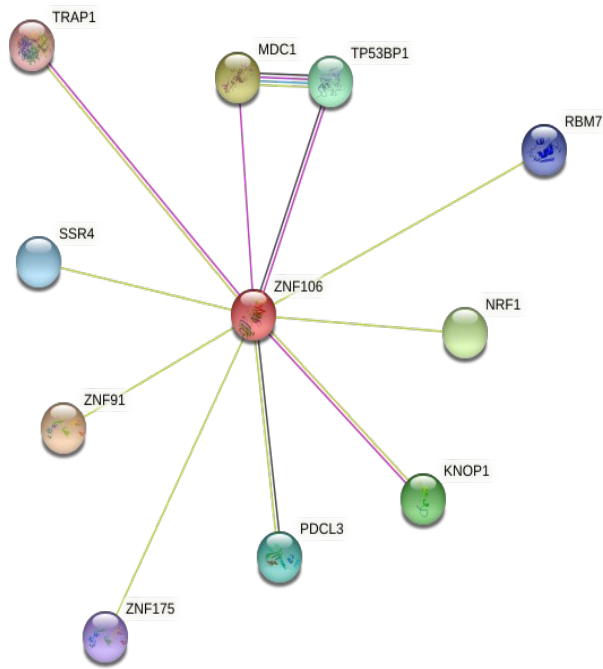
Interacciones de TRPM8



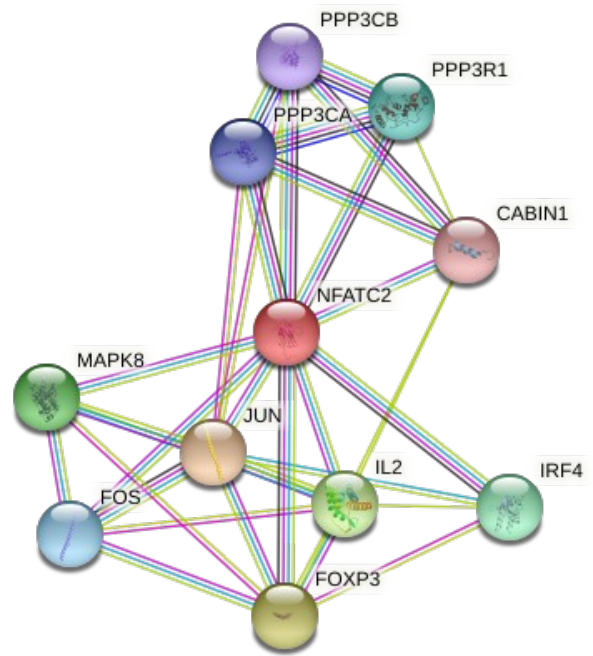
Interacciones de MACF1



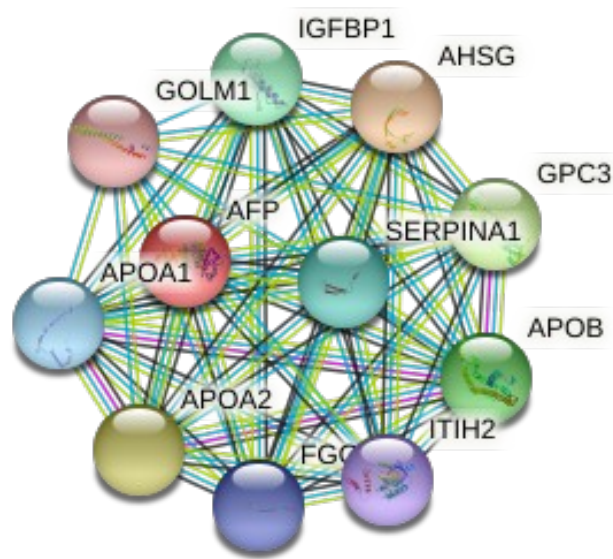
Interacciones de TPBG



Interacciones de ZNF106



Interacciones de NFATC2



Interacciones de AFP

GRÁFICO 1. Niveles de expresión de la proteína humana STAT1 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000115415-STAT1/pathology>)

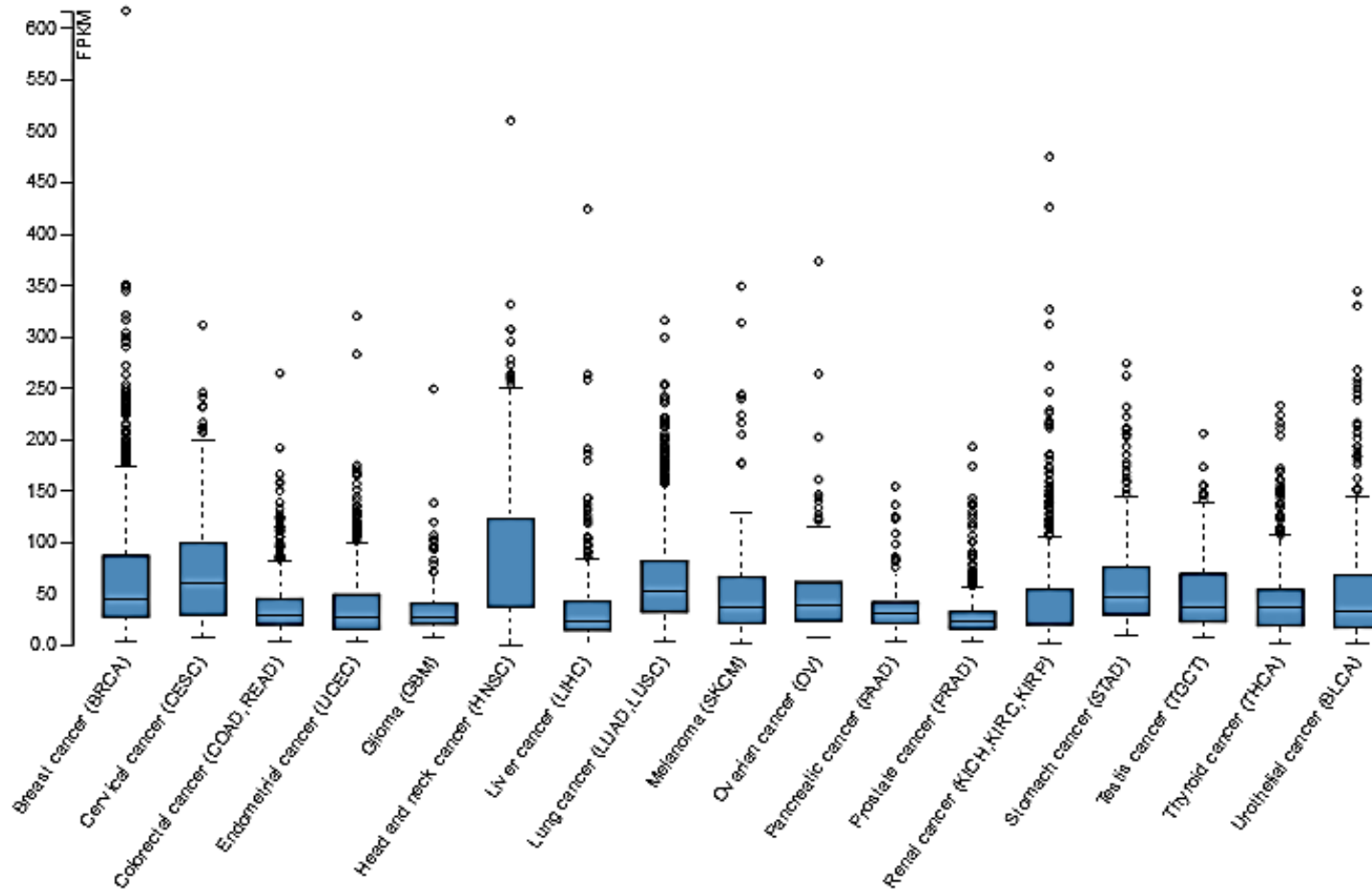


GRÁFICO 2. Niveles de expresión de la proteína humana F2R en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000181104-F2R/pathology>)

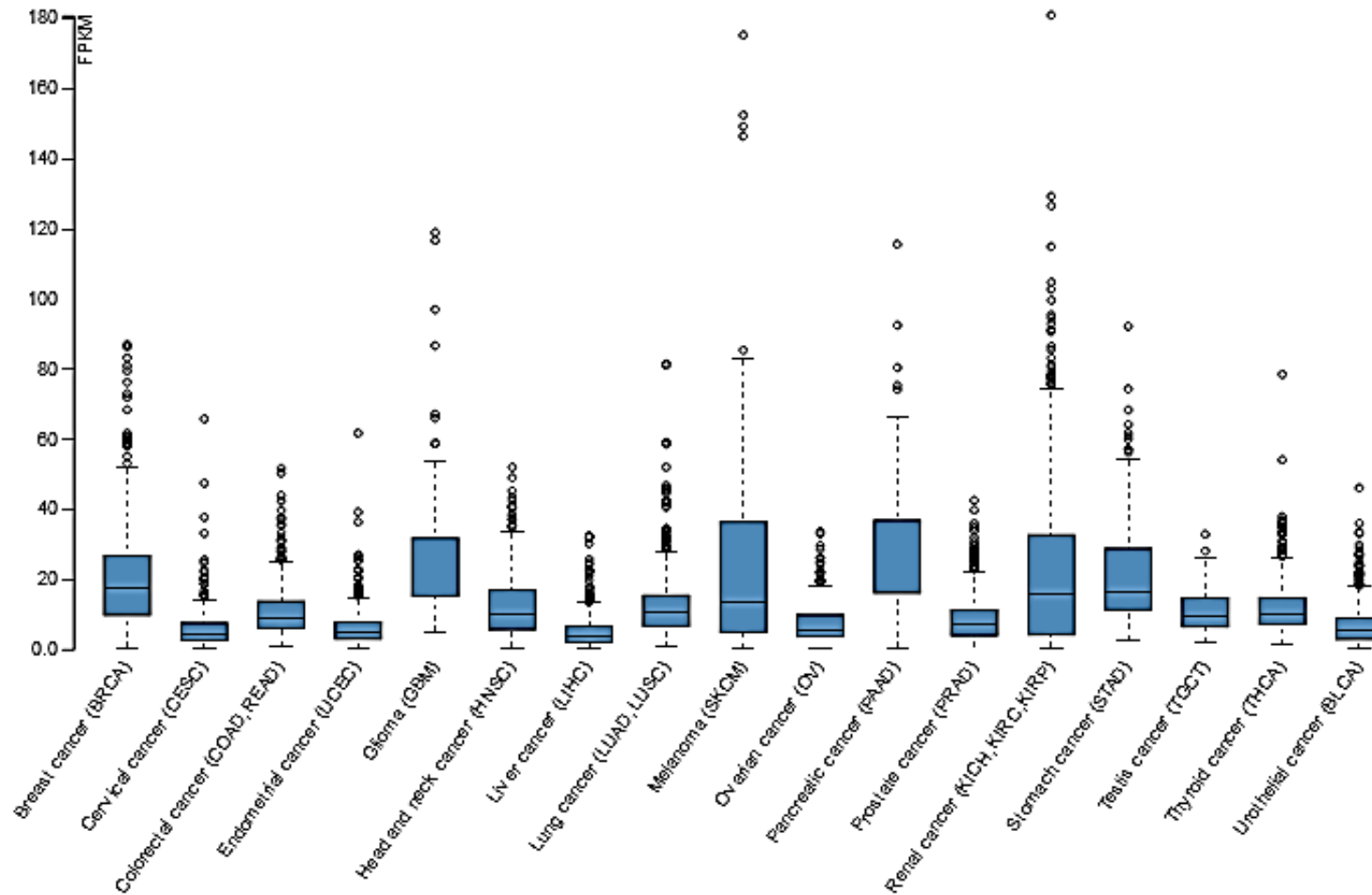


GRÁFICO 3. Niveles de expresión de la proteína humana CSPG4 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000173546-CSPG4/pathology>)

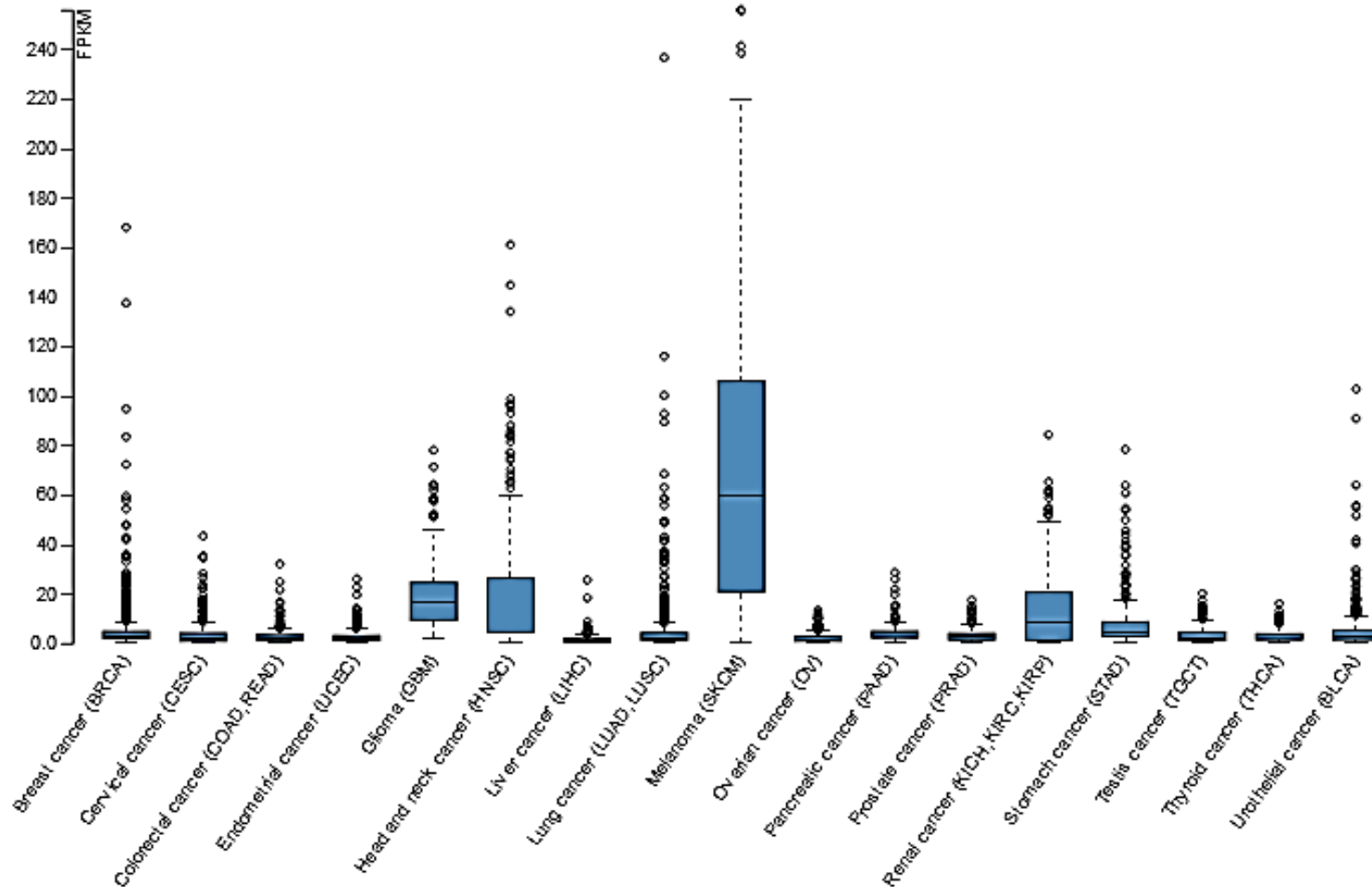


GRÁFICO 4. Niveles de expresión de la proteína humana ATR en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000175054-ATR/pathology>)

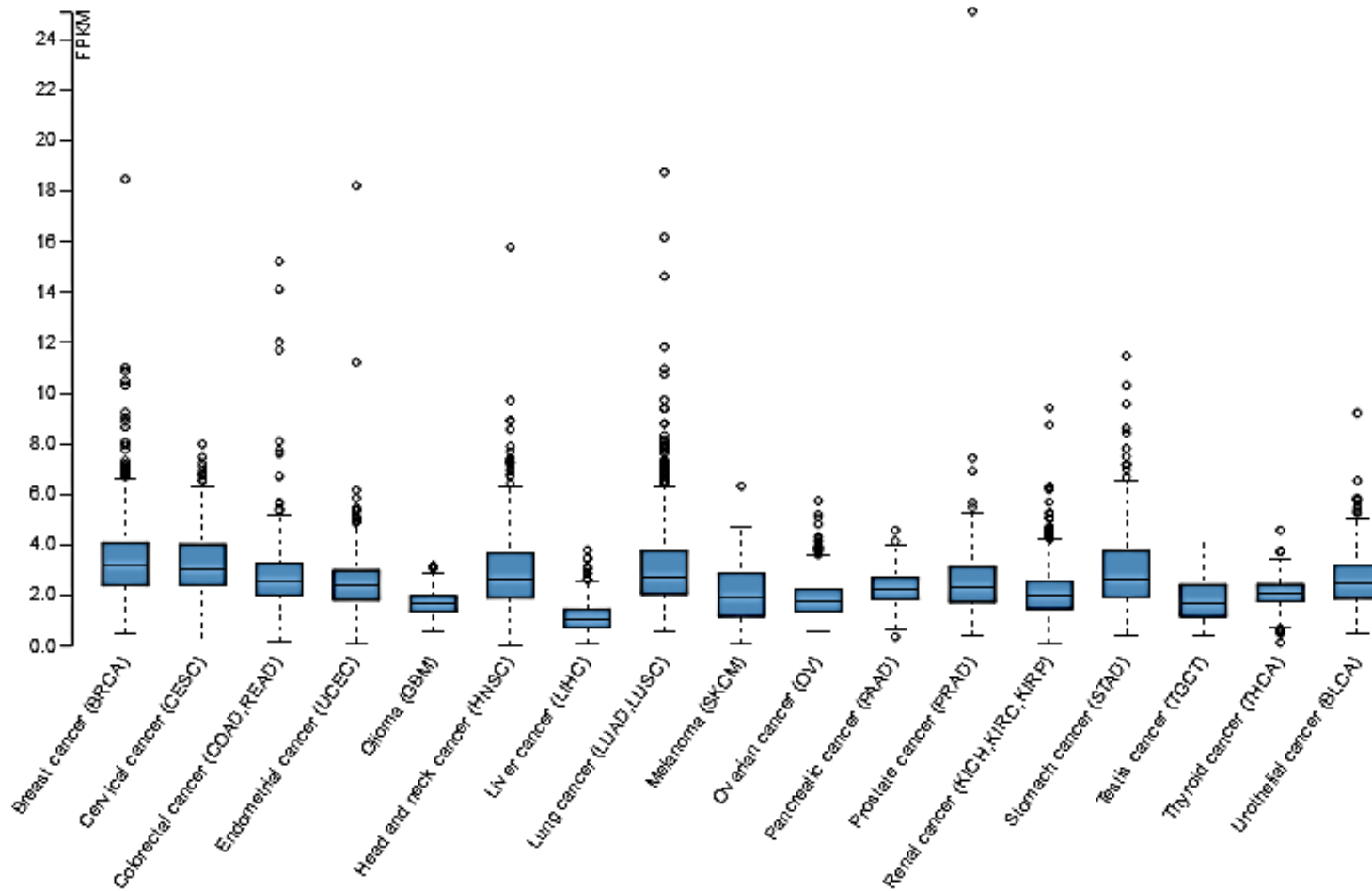


GRÁFICO 5. Niveles de expresión de la proteína humana RYR3 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000198838-RYR3/pathology>)

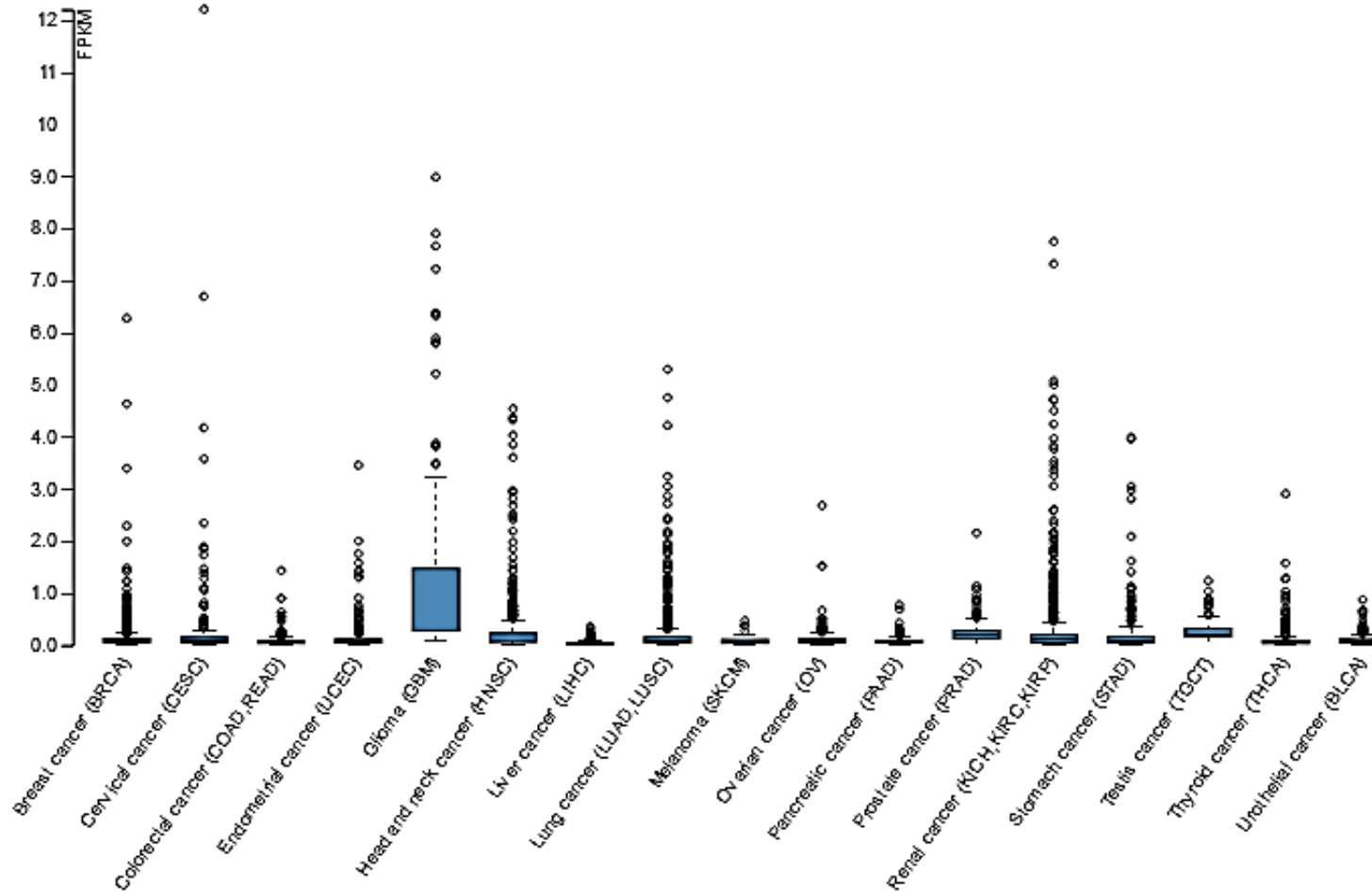


GRÁFICO 6. Niveles de expresión de la proteína humana TRPM8 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000144481-TRPM8/pathology>)

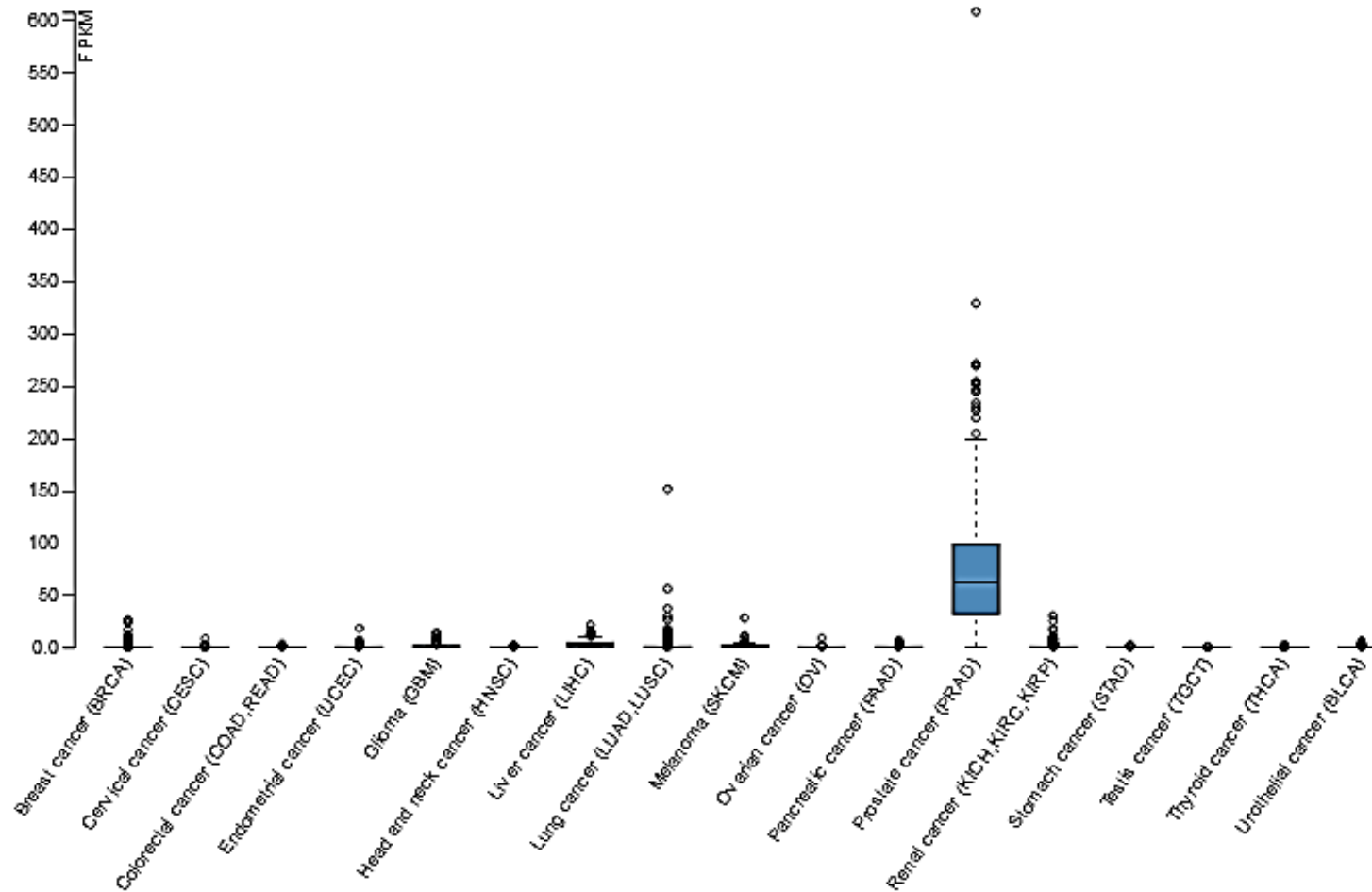


GRÁFICO 7. Niveles de expresión de la proteína humana MACF1 en diferentes tipos tumorales, según *The Human Protein Atlas*. (<https://v17.proteinatlas.org/ENSG00000127603-MACF1/pathology>)

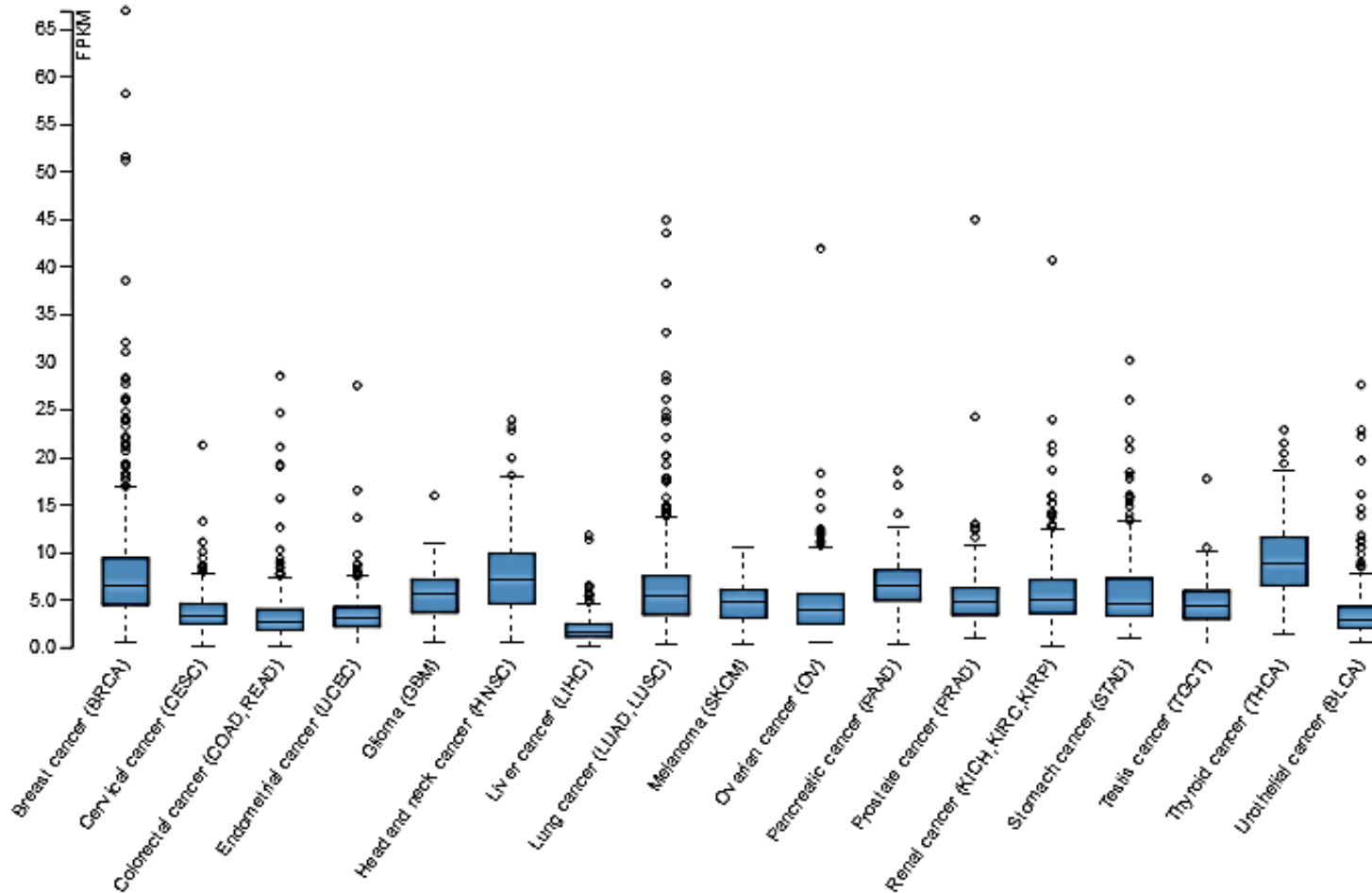


GRÁFICO 8. Niveles de expresión de la proteína humana TPBG en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000146242-TPBG/pathology>)

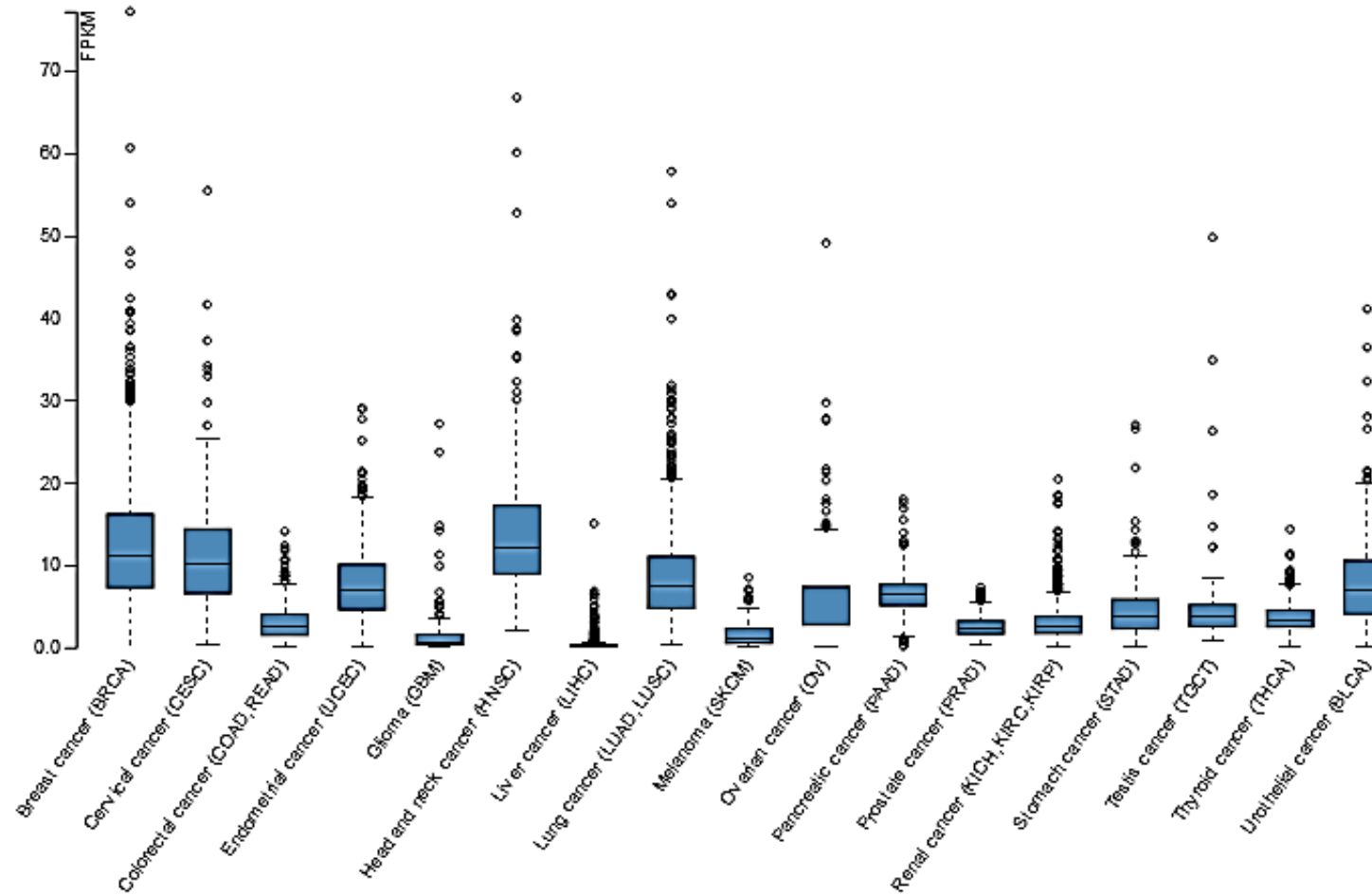


GRÁFICO 9. Niveles de expresión de la proteína humana ZNF106 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000103994-ZNF106/pathology>)

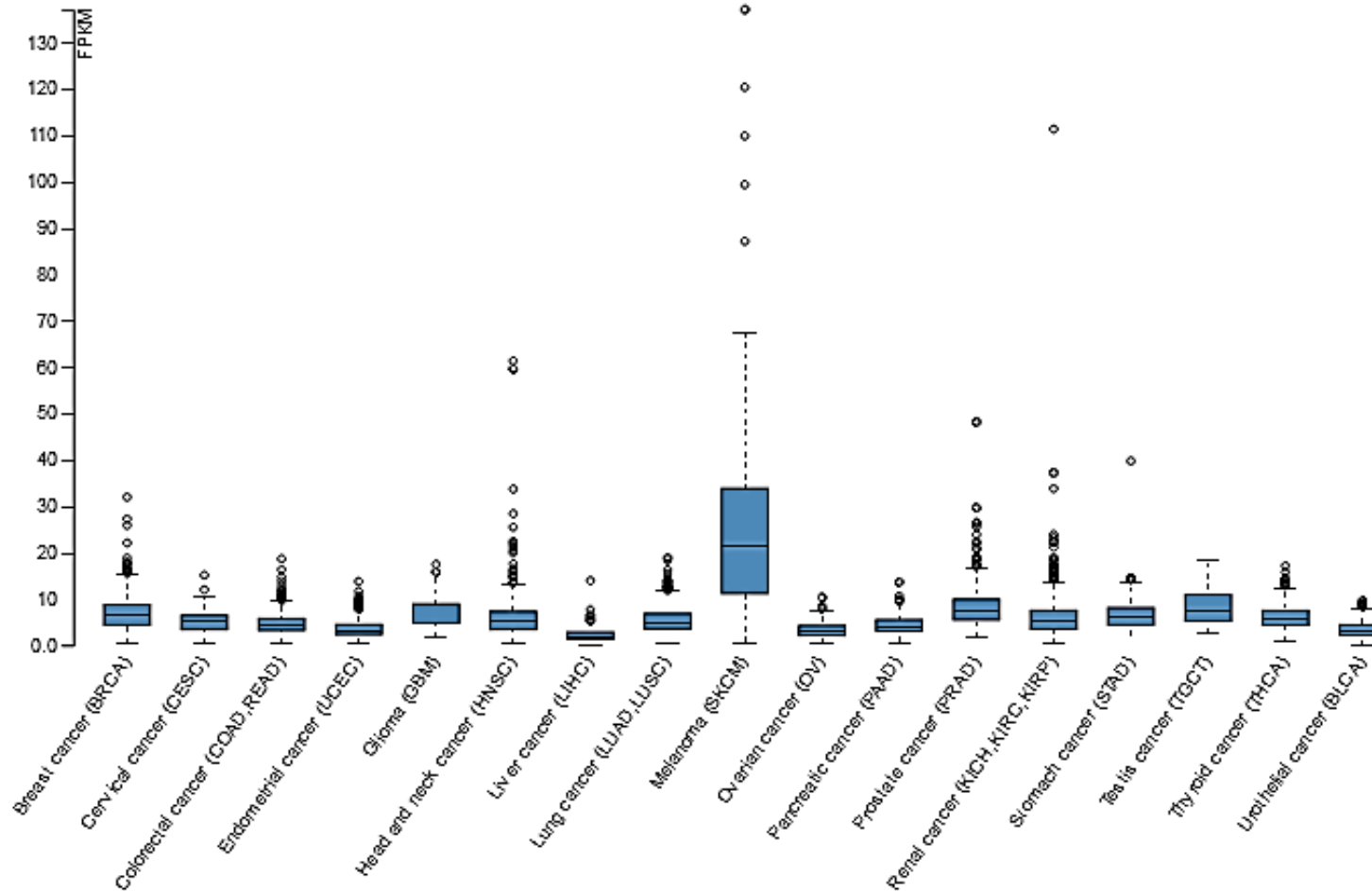


GRÁFICO 10. Niveles de expresión de la proteína humana NFATC2 en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000101096-NFATC2/pathology>)

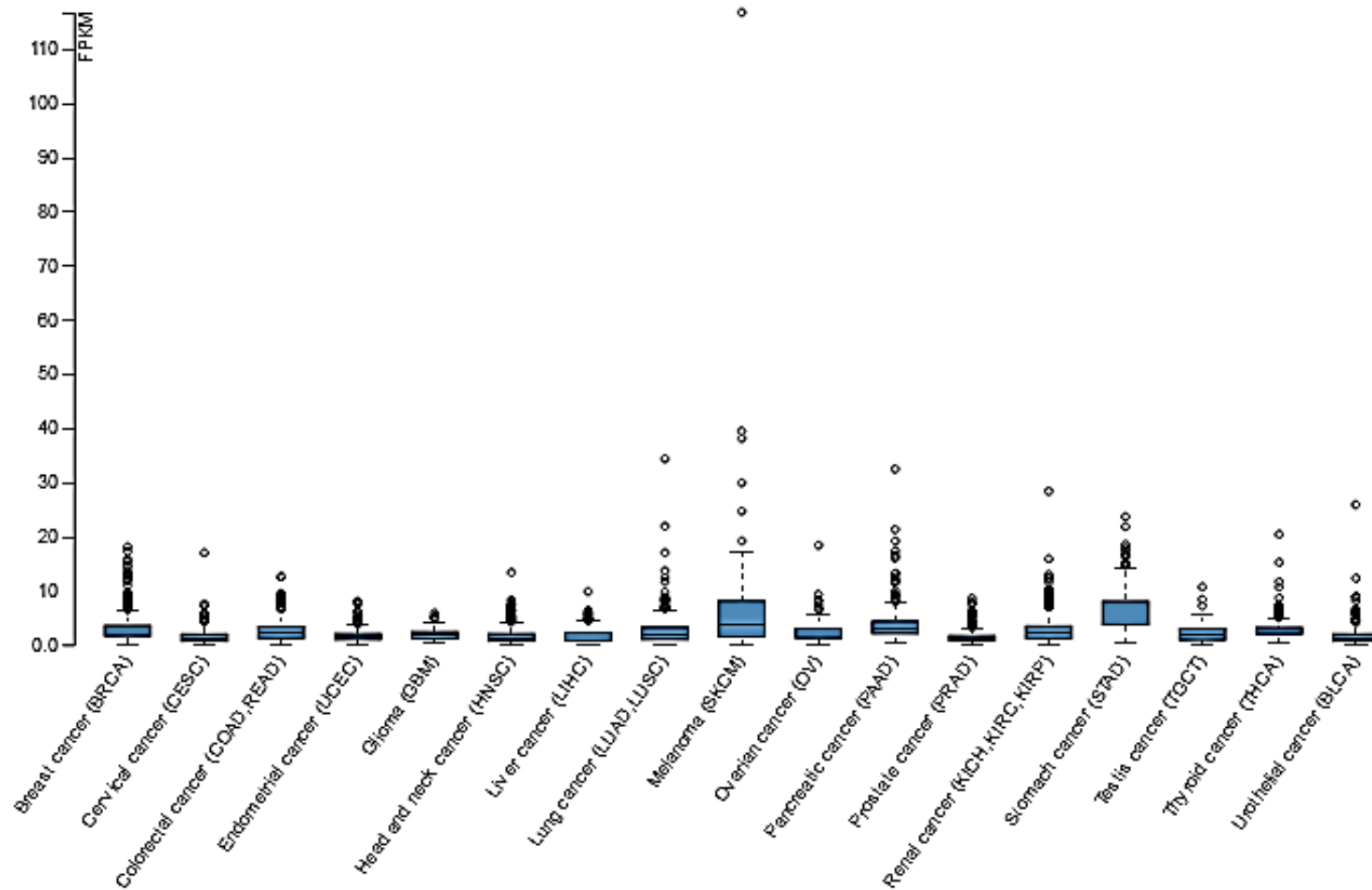
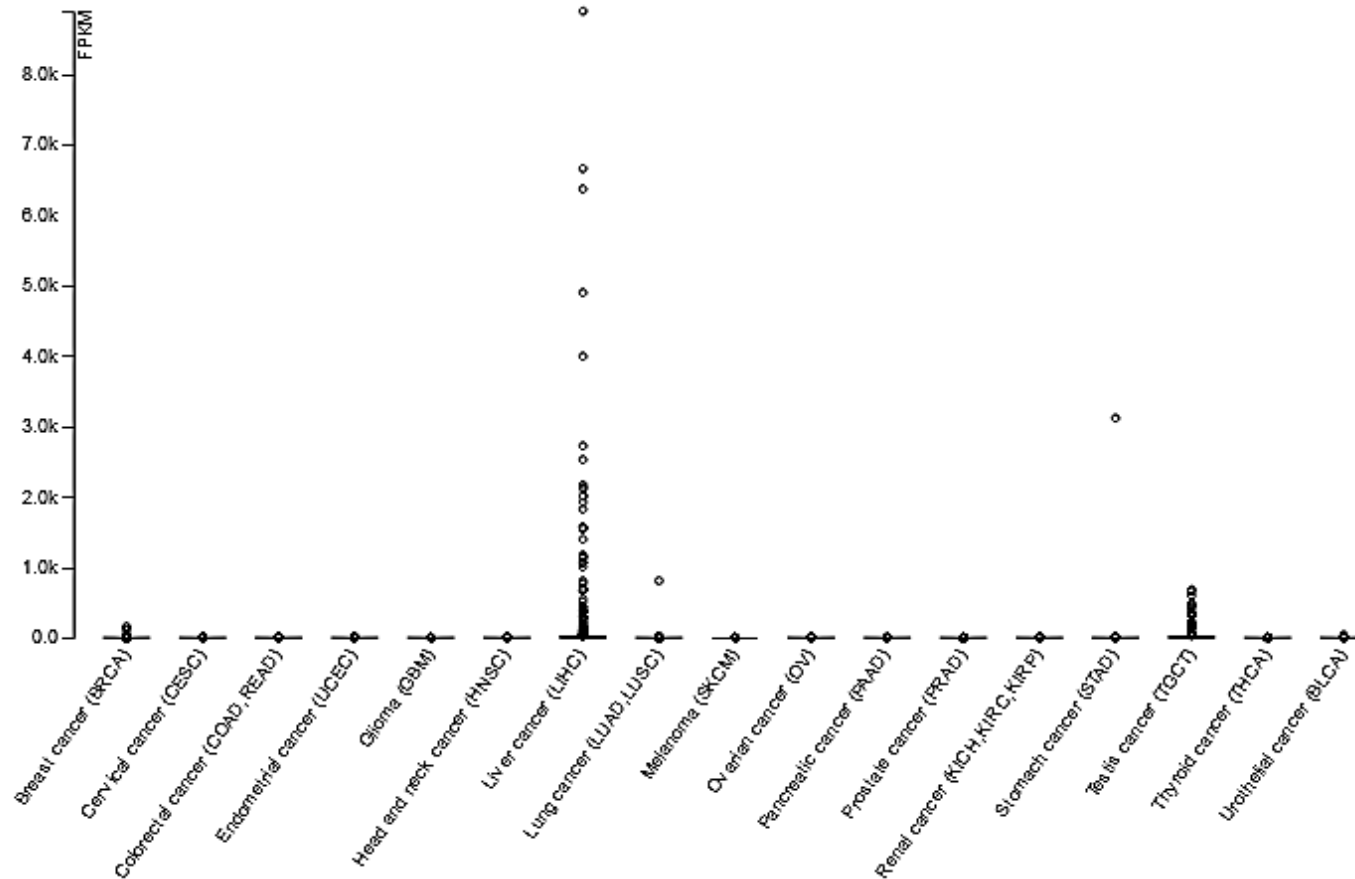


GRÁFICO 11. Niveles de expresión de la proteína humana AFP en diferentes tipos tumorales, según *The Human Protein Atlas* (<https://v17.proteinatlas.org/ENSG00000081051-AFP/pathology>)



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