

TABLE 2: Paulovich Lab Monoclonal antibodies currently in development.

Gene Symbol (HGNC, genenames.org)	Alternate Gene Symbols	Target Protein Name	UniProt ID (& link)	Peptide Modification detected	Modification site	Assay Species	Notes	Mouse or rabbit mAb
AIFM1	AIF, PDCD8	apoptosis inducing factor mitochondria associated 1	<a href="#">Q95831</a>					Mouse
AR		Androgen receptor	<a href="#">P10275</a>					Mouse
AR		Androgen receptor	<a href="#">P10275</a>					Mouse
ARID1A	B120, P270, C10r4, BAF250, BAF250a, C1or4, SMA	AT-rich interaction domain 1A	<a href="#">Q14497</a>	non-modified		Human		Mouse
								Mouse
AXL		Tyrosine-protein kinase receptor UFO	<a href="#">P30530</a>					Mouse
								Mouse
AXL		Tyrosine-protein kinase receptor UFO	<a href="#">P30530</a>					Mouse
								Mouse
AXL		Tyrosine-protein kinase receptor UFO	<a href="#">P30530</a>					Mouse
								Mouse
AXL		Tyrosine-protein kinase receptor UFO	<a href="#">P30530</a>					Mouse
								Rabbit
BRAF		Serine/threonine-protein kinase B-raf	<a href="#">P15056</a>					Rabbit
CASP7	MCH3, CMH-1, ICE-LAP3	caspace 7	<a href="#">P55210</a>					Rabbit
CD34		CD34 molecule	<a href="#">P28906</a>					Mouse
CD46		Membrane cofactor protein	<a href="#">P15529</a>					Rabbit
CD58		Lymphocyte function-associated antigen 3	<a href="#">P19256</a>					Rabbit
								Rabbit
CD84		SLAM family member 5	<a href="#">Q9UI88</a>					Rabbit
CD86	B7.2, B7-2	CD86 molecule	<a href="#">Q6GTS4</a>					Rabbit
CD99		CD99 antigen	<a href="#">P14209</a>					Rabbit
CDK12	CRK7, CRKR, KIAA0904	cyclin dependent kinase 12	<a href="#">Q9NYV4</a>					Rabbit
								Mouse
CDK2		Cyclin-dependent kinase 2	<a href="#">P24941</a>					Mouse
								Mouse
CDKN1A	P21, CIP1, WAF1, SDI1, CAP20, p21CIP1, p21Cip1/Waf1, p21	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	<a href="#">P38936</a>					Rabbit
CGAS		Cyclic GMP-AMP synthase	<a href="#">Q8N884</a>					Rabbit
CSF1R	C-FMS, CSFR, CD115	colony stimulating factor 1 receptor	<a href="#">P07333</a>					Rabbit
CTNNB1	CTNNB, beta-catenin, armadillo	catenin beta 1	<a href="#">P35222</a>					Mouse
CTNNB1	CTNNB, beta-catenin, armadillo	catenin beta 1	<a href="#">P35222</a>					Mouse
DDX11	CHLR1, KRG2, CHL1, ChIR1, WABS	DEAD/H-box helicase 11	<a href="#">Q96FC9</a>					Rabbit
DYNLL1	hdic1, DLC1, PIN, LC8, DLC8	Dynein light chain 1, cytoplasmic	<a href="#">P63167</a>					Rabbit
EPCAM	GA733-2, M152, M451, MIC18, TACSTD1, TROP1	epithelial cell adhesion molecule	<a href="#">P16422</a>					Mouse
ERBB4	HER4	Receptor tyrosine-protein kinase erbB-4	<a href="#">Q15303</a>					Mouse
ERCC3		General transcription and DNA repair factor IIH helicase subunit XPB	<a href="#">P19447</a>					Rabbit
FADD	GIG3, MORT1	FAS-associated death domain protein	<a href="#">Q13158</a>					Mouse
FASN		Fatty acid synthase	<a href="#">P49327</a>			T2204		Rabbit

FASN		Fatty acid synthase	<a href="#">P49327</a>		T2204		Mouse
FCGR3A	CD16, CD16a, FCGR3, FCG3	Fc fragment of IgG receptor IIIa	<a href="#">P08637</a>				Mouse
FDX1	ADX	ferredoxin 1	<a href="#">P10109</a>				Rabbit
FDX1	ADX	ferredoxin 1	<a href="#">P10109</a>				Rabbit
FDX1	ADX	ferredoxin 1	<a href="#">P10109</a>				Mouse
FGR		Tyrosine-protein kinase Fgr	<a href="#">P09769</a>				Mouse
FGR		Tyrosine-protein kinase Fgr	<a href="#">P09769</a>				Mouse
FGR		Tyrosine-protein kinase Fgr	<a href="#">P09769</a>				Mouse
FOXL1	PSM, PSMA, NAALAD1, NAALAdase, GCP2, GCP11	Glutamate carboxypeptidase 2	<a href="#">Q04609</a>				Rabbit
GLS	KIAA0838, GLS1	glutaminase	<a href="#">Q94925</a>				Mouse
GLS	KIAA0838, GLS1	glutaminase	<a href="#">Q94925</a>				Mouse
GLS	KIAA0838, GLS1	glutaminase	<a href="#">Q94925</a>				Mouse
HMG81	HMG3, SBP-1, DKFZp686A04236	high mobility group box 1	<a href="#">P09429</a>		pS35		Rabbit
IDH1	PICD	isocitrate dehydrogenase 1 (NADP+), soluble	<a href="#">Q75874</a>				Mouse
IDH1	PICD	isocitrate dehydrogenase 1 (NADP+), soluble	<a href="#">Q75874</a>				Mouse
IDH2		isocitrate dehydrogenase 2 (NADP+), mitochondrial	<a href="#">P48735</a>				Mouse
IDH2		isocitrate dehydrogenase 2 (NADP+), mitochondrial	<a href="#">P48735</a>				Mouse
IDH3A		isocitrate dehydrogenase 3 (NAD+) alpha	<a href="#">P50213</a>				Mouse
IDH3A		isocitrate dehydrogenase 3 (NAD+) alpha	<a href="#">P50213</a>				Mouse
IDH3B		isocitrate dehydrogenase 3 (NAD+) beta	<a href="#">Q43837</a>				Mouse
IGF1R		Insulin-like growth factor 1 receptor	<a href="#">P08069</a>				Rabbit
IKBIP		Inhibitor of nuclear factor kappa-B kinase-interacting protein	<a href="#">Q70UQ0</a>				Rabbit
IKBKG		inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma	<a href="#">Q9Y6K9</a>				Rabbit
IL1ORB		interleukin 10 receptor, beta	<a href="#">Q08334</a>				Rabbit
IL1RAP		interleukin 1 receptor accessory protein	<a href="#">Q9NPH3</a>				Rabbit
IL1RAP		Interleukin-1 receptor accessory protein	<a href="#">Q9NPH3</a>				Rabbit
IRF3		Interferon regulatory factor 3	<a href="#">Q14653</a>				Rabbit
IRF9		Interferon regulatory factor 9	<a href="#">Q00978</a>				Rabbit
ITGB3		Integrin beta-3	<a href="#">P05106</a>				Mouse
ITGB3		Integrin beta-3	<a href="#">P05106</a>				Mouse
JAK2	JTK10	Janus kinase 2	<a href="#">Q60674</a>				Rabbit
KIT		Mast/stem cell growth factor receptor Kit	<a href="#">P10721</a>				Rabbit
LAG3	CD223	lymphocyte-activation gene 3	<a href="#">P18627</a>				Rabbit
LIPE		Hormone-sensitive lipase	<a href="#">Q05469</a>		S855		Rabbit

								Rabbit
MAP2K4		Dual specificity mitogen-activated protein kinase kinase 4	<a href="#">P45985</a>					Rabbit
MASP1		Mannan-binding lectin serine protease 1	<a href="#">P48740</a>					Rabbit
MET	HGFR, RCP2, DFNB97, C-MET, AUTS9	Hepatocyte growth factor receptor	<a href="#">P08581</a>					Rabbit
MMP9	CLG48	matrix metalloproteinase 9	<a href="#">P14780</a>					Mouse
MR1		Major histocompatibility complex class I-related gene protein	<a href="#">Q95460</a>					Rabbit
MTDH	AEG1, LYRIC	Protein LYRIC	<a href="#">Q86UE4</a>			5298		Rabbit
MUC16	CA125	Ovarian Carcinoma Antigen CA125	<a href="#">Q8WXI7</a>					Rabbit
N/A		anti-acetyl motif	N/A					Rabbit
N/A		anti-phospho Tyrosine motif	N/A					Rabbit
N/A		anti-ubi motif	N/A					Rabbit
NFKB1		Nuclear factor NF-kappa-B p105 subunit	<a href="#">P19838</a>					Rabbit
								Rabbit
NOTCH1		Neurogenic locus notch homolog protein 1	<a href="#">P46531</a>					Rabbit
								Rabbit
PDGFRA		Platelet-derived growth factor receptor alpha	<a href="#">P16234</a>					Rabbit
PDGFRB		Platelet-derived growth factor receptor beta	<a href="#">P09619</a>					Rabbit
PECR		peroxisomal trans-2-enoyl-CoA reductase	<a href="#">Q98Y49</a>					Rabbit
PLIN2	ADFP	perilipin 2	<a href="#">Q99541</a>					Mouse
PNKP		Bifunctional polynucleotide phosphatase/kinase	<a href="#">Q96T60</a>					Rabbit
POLE	POLE1	polymerase (DNA directed), epsilon	<a href="#">Q07864</a>					Rabbit
PRKCD	PKCD	Protein kinase C delta type	<a href="#">Q05655</a>			5645		Mouse
PRKDC	DNPK1, p350, DNAPK, XRCC7, DNA-PKcs, DNAPKc, DNA-PKC, p460	protein kinase, DNA-activated, catalytic polypeptide	<a href="#">P78527</a>			pT2609		Mouse
PRKDC	DNPK1, p350, DNAPK, XRCC7, DNA-PKcs, DNAPKc, DNA-PKC, p460	protein kinase, DNA-activated, catalytic polypeptide	<a href="#">P78527</a>					Mouse
PTGES2	C9orf15, PGES2	prostaglandin E synthase 2	<a href="#">Q9H727</a>					Rabbit
PTGES2	C9orf15, PGES2	prostaglandin E synthase 2	<a href="#">Q9H727</a>					Mouse
								Rabbit
RAD50		DNA repair protein RAD50	<a href="#">Q92878</a>					Rabbit
								Rabbit
RB1		Retinoblastoma-associated protein	<a href="#">P06400</a>					Rabbit
								Rabbit
RELA	NFKB3	Transcription factor p65	<a href="#">Q04206</a>					Mouse
SDC1	CD138, syndecan, SYND1, SDC	syndecan 1	<a href="#">P18827</a>					Mouse

SDHB		Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	<a href="#">P21912</a>					Rabbit
SDHC		Succinate dehydrogenase cytochrome b560 subunit, mitochondrial	<a href="#">Q99643</a>					Rabbit
SLAMF7	CRACC, 19A, CS1, CD319	SLAM family member 7	<a href="#">Q9NQ25</a>					Rabbit
SLC16A1	MCT, MCT1	solute carrier family 16 member 1	<a href="#">P53985</a>					Mouse
SLC16A1	MCT, MCT1	solute carrier family 16 member 1	<a href="#">P53985</a>					Mouse
SMAD4		Mothers against decapentaplegic homolog 4	<a href="#">Q13485</a>					Rabbit
SMPDL3B		Acid sphingomyelinase-like phosphodiesterase 3b	<a href="#">Q92485</a>					Rabbit
SPON2		Spondin-2	<a href="#">Q9BUD6</a>					Rabbit
SQSTM1	ORCA, OSIL	Sequestosome-1	<a href="#">Q13501</a>			S272		Rabbit
SRC		Proto-oncogene tyrosine-protein kinase Src	<a href="#">P12931</a>					Mouse
SRC		Proto-oncogene tyrosine-protein kinase Src	<a href="#">P12931</a>					Mouse
STAT3	APRF	signal transducer and activator of transcription 3 (acute-phase response factor)	<a href="#">P40763</a>			pY705		Rabbit
STAT5A	MGF	signal transducer and activator of transcription 5A	<a href="#">P42229</a>			pS780		Rabbit
STAT5B		signal transducer and activator of transcription 5B	<a href="#">P51692</a>			pS193		Rabbit
STK11		Serine/threonine-protein kinase STK11	<a href="#">Q15831</a>					Rabbit
TACSTD2	TROP2, GA733-1, EGP-1	tumor associated calcium signal transducer 2	<a href="#">P09758</a>					Mouse
TACSTD2	TROP2, GA733-1, EGP-1	tumor associated calcium signal transducer 2	<a href="#">P09758</a>					Mouse
TBK1		TANK-binding kinase 1	<a href="#">Q9UHD2</a>					Rabbit
TCOF1	MFD1, TCS, TCS1, treacle	Treacle protein	<a href="#">Q13428</a>					Mouse
TMEM173	FLJ38577, NET23, ERIS, MPYS, STING, MITA	transmembrane protein 173	<a href="#">Q86WV6</a>			pS358		Rabbit
TNFAIP2		Tumor necrosis factor alpha-induced protein 2	<a href="#">Q03169</a>					Rabbit
TREX1		three prime repair exonuclease 1	<a href="#">Q9NSU2</a>					Rabbit
TRIP13		Pachytene checkpoint protein 2 homolog	<a href="#">Q15645</a>					Mouse
TRIP13		Pachytene checkpoint protein 2 homolog	<a href="#">Q15645</a>					Mouse
TRIP13		Pachytene checkpoint protein 2 homolog	<a href="#">Q15645</a>					Mouse

USP7	HAUSP	ubiquitin specific peptidase 7	<a href="#">Q93009</a>					Mouse
USP7	HAUSP	ubiquitin specific peptidase 7	<a href="#">Q93009</a>					Mouse
VIM		vimentin	<a href="#">P08670</a>					Mouse
								Rabbit
VSIG4		V-set and immunoglobulin domain-containing protein 4	<a href="#">Q9Y279</a>					
VTCN1	B7-H4, FLJ22418, B7S1, B7X, B7H4	V-set domain containing T cell activation inhibitor 1	<a href="#">Q7Z7D3</a>					Mouse
VTCN1	B7-H4, FLJ22418, B7S1, B7X, B7H4	V-set domain containing T cell activation inhibitor 1	<a href="#">Q7Z7D3</a>					Mouse
								Mouse
WRN		Werner syndrome ATP-dependent helicase	<a href="#">Q14191</a>					
								Mouse
WRN		Werner syndrome ATP-dependent helicase	<a href="#">Q14191</a>					
XPA		DNA repair protein complementing XP-A cells	<a href="#">P23025</a>					Rabbit
YTHDF2		YTH domain-containing family protein 2	<a href="#">Q9Y5A9</a>					Rabbit