

Active Recombinant Human Integrin, Beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12)

Cat. No. ITGB1-1484H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	TIMP1 Human Recombinant produced in HEK-293 cells is a single, glycosylated, polypeptide chain containing 184 amino acids with a molecular weight of 20.7 kDa though on SDS-PAGE migrates at about 28kDa due to the glycosilation. The TIMP1 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
Description	TIMP1 is a member of the TIMP family. TIMP1 is an inducible glycoprotein produced by various cell types. The TIMP1 glycoprotein is a natural inhibitor of the matrix metalloproteinases, which a group of peptidases involved in degradation of the extracellular matrix. TIMP1 binds in a reversible mode to MMPs, with regions in the N-terminal domain binding to the MMP substrate-binding site.
Form	The TIMP1 protein was lyophilized from a 0.2µm filtered solution containing no additives or preservatives.
Purity	Greater than 95.0% as determined by SDS-PAGE
Bio-activity	IC50 = 0.4 to 1.2 nM, determined by the concentration dependent inhibition of human MMP-2 hydrolysis of a peptide substrate (7-methoxycoumarin-4-yl)acetyl-Pro-Leu-Gly-Leu-(3-[2, 4-dinitrophenyl]-L-2, 3-diaminopropionyl)-Ala-Arg-NH2, under conditions i

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	n which recombinant pro-MMP-2 is activated, and the peptide substrate concentration is 5 μ M.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Solubility	It is recommended to reconstitute the lyophilized TIMP1 in sterile 18M Ω -cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Amino acid sequence	CTCVPPHPQT AFCNSDLVIR AKFVGTPPEVN QTTLYQRYEI KMTKMYKGFQALGDAADIRF VYTPAMESVC GYFHRSHNRS EEFLIAGKLQ DGLLHITTCS FVAPWNSLSL AQRGRFTKTY TVGCCECTVF PCLSIPCKLQ SGTHCLWTDQ LLGSEKGFQ SRHLACLPRE PGLCTWQSLR SQIA
Storage	Lyophilized TIMP1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution TIMP1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	ITGB1 integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12) [Homo sapiens]
Official Symbol	ITGB1
Synonyms	ITGB1; integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12); FNRB; CD29; GPIIA; Fibronectin receptor subunit beta; MDF2; MSK12; VLA-BETA; VLAB; integrin beta-1; integrin VLA-4 beta subunit; very late activation protein, beta polypeptide; CD29 antigen; VLA-4 subunit beta
Gene ID	3688

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mRNA Refseq	NM_002211
Protein Refseq	NP_002202
MIM	135630
UniProt ID	P05556
Chromosome Location	10p11.2
Pathway	Adaptive Immunity Signaling; Arf6 trafficking events; Arrhythmogenic right ventricular cardiomyopathy (ARVC); Axon guidance; CXCR4-mediated signaling events; Cell junction organization; Dilated cardiomyopathy
Function	actin binding; alpha-actinin binding; identical protein binding; protein binding; protein domain specific binding; receptor activity

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