# **PRODUCT INFORMATION**

**Expression system** Baculovirus

**Domain** 21-728aa

**UniProt No.** P05556

NCBI Accession No. NP\_002202.2

### **Alternative Names**

CD29, Fibronectin receptor subunit beta, FNRB, Glycoprotein lia, GPIIA, Integrin beta-1 isoform 1A, ITGB1, MDF2, MSK12, VLA-4 subunit beta, VLAB, VLA-BETA

# **PRODUCT SPECIFICATION**

## **Molecular Weight**

79.4 kDa (716aa)

### Concentration

1mg/ml (determined by absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

**Purity** > 95% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

**Tag** His-Tag

Application SDS-PAGE

### **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# BACKGROUND

### Description

ITGB1, also known as integrin beta-1 isoform 1A, is the only alpha 1 integrin family adhesion receptor, one of twelve integrins that share the beta 1 subunit, and one of four collagen binding integrins. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including



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embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This protein is reported to down-regulate EGF-R signaling, increase expression of caveolin-1, reduce production of reactive oxygen species, regulate collagen expression, control MMP collagenase and gelatinase activity, and mediate the renal basement membrane disorder Alport syndrome. Recombinant human ITGB1 protein, fused to His-tag at Cterminus, was expressed in insect cell and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

QTDENRCLKA NAKSCGECIQ AGPNCGWCTN STFLQEGMPT SARCDDLEAL KKKGCPPDDI ENPRGSKDIK KNKNVTNRSK GTAEKLKPED ITQIQPQQLV LRLRSGEPQT FTLKFKRAED YPIDLYYLMD LSYSMKDDLE NVKSLGTDLM NEMRRITSDF RIGFGSFVEK TVMPYISTTP AKLRNPCTSE QNCTSPFSYK NVLSLTNKGE VFNELVGKQR ISGNLDSPEG GFDAIMQVAV CGSLIGWRNV TRLLVFSTDA GFHFAGDGKL GGIVLPNDGQ CHLENNMYTM SHYYDYPSIA HLVQKLSENN IQTIFAVTEE FQPVYKELKN LIPKSAVGTL SANSSNVIQL IIDAYNSLSS EVILENGKLS EGVTISYKSY CKNGVNGTGE NGRKCSNISI GDEVQFEISI TSNKCPKKDS DSFKIRPLGF TEEVEVILQY ICECECQSEG IPESPKCHEG NGTFECGACR CNEGRVGRHC ECSTDEVNSE DMDAYCRKEN SSEICSNNGE CVCGQCVCRK RDNTNEIYSG KFCECDNFNC DRSNGLICGG NGVCKCRVCE CNPNYTGSAC DCSLDTSTCE ASNGQICNGR GICECGVCKC TDPKFQGQTC EMCQTCLGVC AEHKECVQCR AFNKGEKKDT CTQECSYFNI TKVESRDKLP QPVQPDPVSH CKEKDVDDCW FYFTYSVNGN NEVMVHVVEN PECPTGPD<LE HHHHHH>

#### **General References**

Wang XM., et al. (2013) PLoS One. 8: e55714. Minchenko OH., et al. (2014) Ukr Biochem J. 86:79-89.

### DATA

#### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain