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# Recombinant human TGF-beta RI/ALK-5 protein

Catalog Number: ATGP4134

# **PRODUCT INFORMATION**

# **Expression system**

Baculovirus

#### **Domain**

27-126aa

#### UniProt No.

P36897

#### **NCBI Accession No.**

NP 004603.1

# **Alternative Names**

TGF-beta receptor type-1 isoform 1, TGFBR1, AAT5, ACVRLK4, ALK-5, ALK5, ESS1, LDS1, LDS1A, LDS2A, MSSE, SKR4, tbetaR-I, TBR-I, TBRI, TGFR-1, Activin A receptor type II-like protein kinase of 53kD, Activin receptor-like kinase 5, Serine/threonine-protein kinase receptor R4, TGF-beta type I receptor, Transforming growth factor-beta receptor type I

# **PRODUCT SPECIFICATION**

# **Molecular Weight**

38kDa (342aa)

### Concentration

0.5mg/ml (determined by absorbance at 280nm)

#### **Formulation**

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

# **Purity**

> 90% by SDS-PAGE

#### **Endotoxin level**

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

#### **Biological Activity**

Measured by its binding ability in a functional ELISA with Mouse CD105 (CAT# ATGP3361). The ED50 range  $\leq$  2 ug/ml.

#### Tag

hlgG-His-Tag

# **Application**

SDS-PAGE, Bioactivity

# **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.



# Recombinant human TGF-beta RI/ALK-5 protein

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# **BACKGROUND**

# **Description**

TGFBR1, also known as TGF-beta receptor type-1 isoform 1, is a single-pass type 1 membrane protein which belongs to the protein kinase superfamily and TGFB receptor subfamily. This protein is a secreted protein that performs many cellular functions, including the control of cell growth, cell proliferation, cell differentiation and apoptosis. Also, it plays an important role in controlling the immune system, and shows different activities on different types of cell, or cells at different developmental stages. Defects in TGFBR1 are the cause of Loeys-Dietz syndrome type 1A (LDS1A), Loeys-Diets syndrome type 2A (LDS2A), and aortic aneurysm familial thoracic type 5 (AAT5). Recombinant human TGFBR1, fused to hlgG-His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

# **Amino acid Sequence**

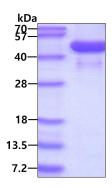
<ADL>LLPGATA LQCFCHLCTK DNFTCVTDGL CFVSVTETTD KVIHNSMCIA EIDLIPRDRP FVCAPSSKTG SVTTTYCCNQ DHCNKIELPT TVKSSPGLGP VEL<VEPKSCD KTHTCPPCPA PELLGGPSVF LFPPKPKDTL MISRTPEVTC VVVDVSHEDP EVKFNWYVDG VEVHNAKTKP REEQYNSTYR VVSVLTVLHQ DWLNGKEYKC KVSNKALPAP IEKTISKAKG QPREPQVYTL PPSRDELTKN QVSLTCLVKG FYPSDIAVEW ESNGQPENNY KTTPPVLDSD GSFFLYSKLT VDKSRWQQGN VFSCSVMHEA LHNHYTQKSL SLSPGKHHHH HH>

#### **General References**

Wrana JL., et al, (1992) Cell 71:1003-1014. Huse M., et al, (1999) Cell 96:425-436.

# **DATA**

#### SDS-PAGE

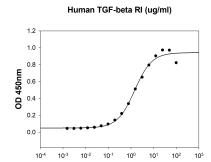


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

# **Biological Activity**

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Mouse CD105 (CAT# ATGP3361) is coated at 10 ug/ml (100 ul/well) can bind Human TGF-beta RI/ALK-5. The ED50 range  $\leq$  2 ug/ml.

