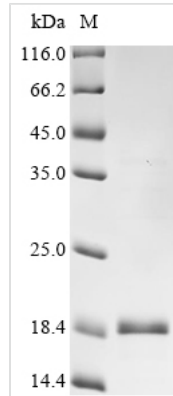




Recombinant Human TGF-beta receptor type-1 (TGFB1), partial

Product Code	CSB-EP023451HU1
Abbreviation	Recombinant Human TGFB1 protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P36897
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	LQCFCHLCTKDNFTCVTDGLCFVSVTETTDKVIHNSMCIAEIDLIPRDRPFVCAP SSKTGSVTTTYCCNQDHCNKIELPTTVKSSPGLGPVEL
Research Area	Cancer
Source	E.coli
Target Names	TGFB1
Expression Region	34-126aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	17.6 kDa
Protein Length	Partial
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

Recombinant human TGF-beta receptor type-1 (TGFBFR1) is a high-purity protein with a purity exceeding 90%, as confirmed by SDS-PAGE. Derived from human species and expressed in *E. coli*, this protein includes the expression region 34-126aa, representing a partial length version. It contains an N-terminal 10xHis-tag and a C-terminal Myc-tag for easy detection and purification. It comes in liquid or lyophilized powder form.

The human TGFBFR1 forms a heterocomplex with TGFBFR2 upon binding with TGF- β , leading to the phosphorylation of downstream signaling proteins, particularly the SMAD family of proteins, which transduce the signal to the nucleus to regulate gene expression [1][2]. This receptor is integral to physiological and pathological processes, including cell growth, differentiation, migration, development, immune response, and cancer progression [3][4].

Evidence has shown that miR-769-5p inhibits the proliferation and invasion of NSCLC cells by targeting TGFBFR1, highlighting the TGFBFR1's role in cancer biology [5][6]. TGFBFR1 is implicated in other diseases, including fibrosis and cardiovascular conditions. The receptor's signaling can promote fibrogenesis in tissues such as the liver and heart, enhancing the activation and survival of fibroblasts and myofibroblasts [7][8]. Moreover, dysregulation of TGFBFR1 signaling has been associated with aortic aneurysm formation, indicating its involvement in vascular diseases [9].

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Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.