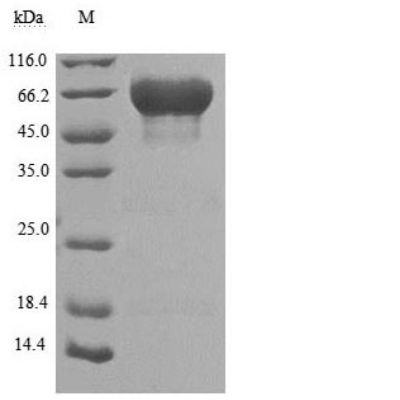
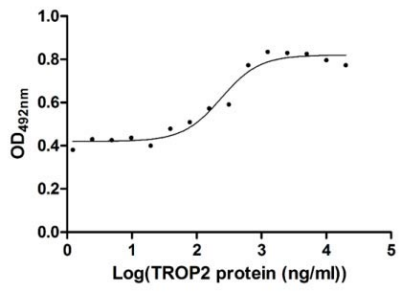
Recombinant Human Tumor-associated calcium signal transducer 2 (TACSTD2), partial (Active)

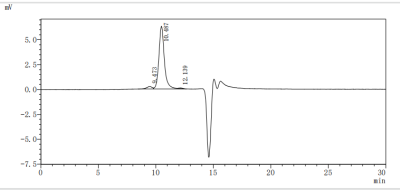
Product Code	CSB-MP023072HU1
Relevance	May function as a growth factor receptor
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P09758
Storage Buffer	Lyophilized from a 0.2 μm filtered PBS, 6% Trehalose, pH 7.4
Product Type	Others
Immunogen Species	Homo sapiens (Human)
Biological Activity	Measured in cell activity assay using U937 cells. The EC50 for this effect is 190.2-298.6 ng/ml.
Purity	Greater than 90% as determined by SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Sequence	HTAAQDNCTCPTNKMTVCSPDGPGGRCQCRALGSGMAVDCSTLTSKCLLLK ARMSAPKNARTLVRPSEHALVDNDGLYDPDCDPEGRFKARQCNQTSVCWCV NSVGVRRTDKGDLSLRCDELVRTHHILIDLRHRPTAGAFNHSDLDAELRRLFR ERYRLHPKFVAAVHYEQPTIQIELRQNTSQKAAGDVDIGDAAYYFERDIKGESL FQGRGGLDLRVRGEPLQVERTLIYYLDEIPPKFSMKRLT
Research Area	Cancer
Source	Mammalian cell
Gene Names	TACSTD2
Expression Region	27-274aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	C-terminal hFc-tagged
Mol. Weight	56.8 kDa
Protein Description	Partial
Image	



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



Activity
Measured in cell activity assay using U937 cells, the EC_{50} for this effect is 190.2-298.6 ng/ml.



The purity of TACSTD2 was greater than 95% as determined by SEC-HPLC

Description

With an EC50 between 190.2-298.6 ng/ml on U937 cells, Recombinant Human Tumor-Associated Calcium Signal Transducer 2 (TACSTD2) (also known as TROP2) finds application in various researches, including cancer research. This recombinant protein is a surface receptor with partial length. A DNA sequence encoding the TACSTD2 (27-274aa) was fused with an Fc-tag at C-terminal. Overexpression and upregulation of TROP2 have been associated with various tumors and cancers. Its tumorigenic effects depend on ligand binding and the activation of intracellular pathways.
TROP2 is involved in the JAK/STAT pathway, MAP/ERK pathway, and the PI3/AKT pathway. It binds with ligands such as IGF-1, Cyclin, Claudin, and Protein Kinase C.
TROP2 also finds application in studies on gelatinous drop-like corneal dystrophy (GDLD). Mutations in the TACSTD2 gene have been shown to play a major role in the development of GDLD.
The purity and endotoxin levels of the Recombinant Human Tumor-Associated Calcium Signal Transducer 2 is determined using SDS-PAGE and LAL method, respectively. The product is over 90% pure with an endotoxin content below 1EU/μg.

Endotoxin

Less than 1.0 EU/ug as determined by LAL method.