

## Cripto Active Protein | TDGF1 active protein

Cripto Protein, Human, Recombinant (hFc Tag)

CATALOG #  
**AAA257949**

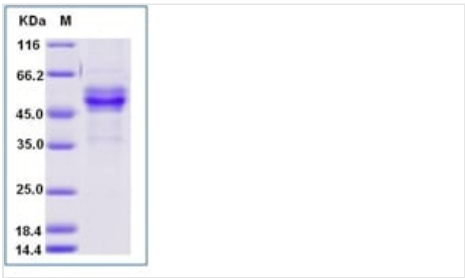
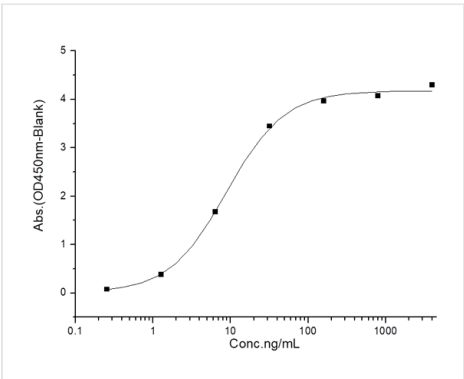
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

Cripto; Cripto Protein; Human; Recombinant (hFc Tag); Human Cripto Protein (Fc Tag); CR Protein; CRGF Protein; CRIPTO Protein; teratocarcinoma-derived growth factor 1; TDGF1 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Purity/Purification     | >95% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.                                                                                                                                                                                                                                                                                               |
| Sequence                | Met1-Thr17 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Species                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Endotoxin               | <1.0EU per ug protein as determined by the LAL method.                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Predicted N Terminal    | Leu 31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Tag                     | C-human IgG1-Fc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Protein Construction    | A DNA sequence encoding the human TDGF1 (NP_003203.1)(Met1-Thr172) was expressed with the Fc region of human IgG1 at the C-terminus.                                                                                                                                                                                                                                                                                                                                                                             |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                  |
| Activity                | Measured by its binding ability in a functional ELISA. Immobilized ALK4-His at 10ug/mL (100uL/well) can bind TDGF1-Fc. The EC50 of human TDGF1-Fc is 6.0-14ng/mL.                                                                                                                                                                                                                                                                                                                                                |
| Preparation and Storage | <p>Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Measured by its binding ability in a functional ELISA. Immobilized ALK4-His at 10 ug/mL (100 uL/well) can bind TDGF1-Fc, the EC50 of human TDGF1-Fc is 6.0-14 ng/mL.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for TDGF1 active protein | Background: Cripto/TDGF1 is a member of the epidermal growth factor (EGF)- Cripto, Frl-1, and Cryptic (CFC) family. EGF-CFC family member proteins share a variant EGF-like motif, a conserved cysteine-rich domain, and a C-terminal hydrophobic region. Before gastrulation, Cripto is asymmetrically expressed in a proximal-distal gradient in the epiblast, and subsequently is expressed in the primitive streak and newly formed embryonic mesoderm. These proteins play key roles in intercellular signaling pathways during vertebrate embryogenesis. Mutations in Cripto/TDGF1 can cause autosomal visceral heterotaxy. Cripto/TDGF1 is involved in left-right asymmetric morphogenesis during organ development. Cripto signalling is essential for the conversion of a proximal-distal asymmetry into an orthogonal anterior-posterior axis. The mechanism of inhibitory effects of the Cripto includes both cancer cell apoptosis, activation of c-Jun-NH(2)-terminal kinase and p38 kinase signaling pathways and blocking of Akt phosphorylation. Thus, Cripto is a unique target, and Immunohistochemistry to Cripto could be of therapeutic value for human cancers. |
| Product Categories/Family for TDGF1 active protein   | Cardiac Stem Cell Markers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| References                                           | Calvanese L, et al. (2006) Solution structure of mouse Cripto CFC domain and its inactive variant Trp107Ala. J Med Chem. 49 (24): 7054-62.Lonardo E, et al. (2010) A small synthetic cripto blocking Peptide improves neural induction, dopaminergic differentiation, and functional integration of mouse embryonic stem cells in a rat model of Parkinson's disease. Stem Cells. 28 (8): 1326-37.Chambery A, et al. (2009) Qualitative and quantitative proteomic profiling of cripto(-/-) embryonic stem cells by means of accurate mass LC-MS analysis. J Proteome Res. 8 (2): 1047-58.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

NCBI AND UNIPROT INFORMATION

|                                  |                                                   |
|----------------------------------|---------------------------------------------------|
| NCBI GI #                        | 4507425                                           |
| NCBI GeneID                      | 6997                                              |
| NCBI Accession #                 | NP_003203.1                                       |
| NCBI GenBank Nucleotide #        | NM_003212.3                                       |
| Molecular Weight                 | 21,169 Da                                         |
| NCBI Official Full Name          | teratocarcinoma-derived growth factor 1 isoform 1 |
| NCBI Official Synonym Full Names | teratocarcinoma-derived growth factor 1           |
| NCBI Official Symbol             | TDGF1                                             |
| NCBI Official Synonym Symbols    | CR; CRGF; CRIPTO                                  |
| NCBI Protein Information         | teratocarcinoma-derived growth factor 1           |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://www.aaabiotech.com/hek293-tdgf1-active-protein/cripto/257949>