

## TrkC Active Protein | NTRK3 active protein

TrkC Protein, Human, Recombinant (His Tag)

CATALOG #  
**AAA257822**

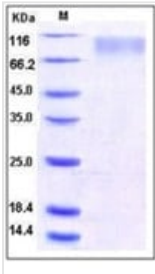
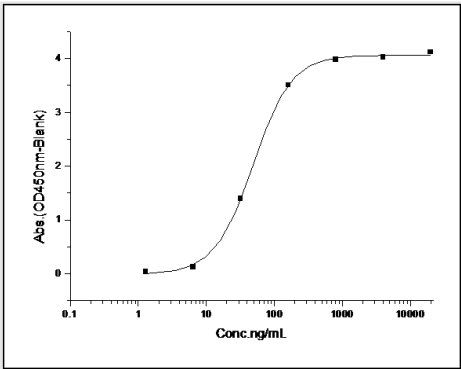
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

TrkC; TrkC Protein; Human; Recombinant (His Tag); Human TrkC/NTRK3 Protein (His Tag); gp145(trkC) Protein; TRKC Protein; neurotrophic tyrosine kinase; receptor; type 3; NTRK3 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-Asp428                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Species                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Endotoxin               | <1.0EU per ug of the protein as determined by the LAL method                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Predicted N Terminal    | Cys 32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Tag                     | C-His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Protein Construction    | A DNA sequence encoding the extracellular domain (Met 1-Asp 428) of human TrkC (NP_001007157.1) was expressed with a C-terminal polyhistidine tag.                                                                                                                                                                                                                                                                                                                                                                      |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                         |
| Activity                | Immobilized human Trkc-His at 10ug/ml (100uL/well) can bind biotinylated human NT3. The EC50 of biotinylated human NT3 is 0.03-0.07ug/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.</p> <p>They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Immobilized human Trkc-His at 10 ug/ml (100 ul/well) can bind biotinylated human NT3, The EC50 of biotinylated human NT3 is 0.03-0.07 ug/ml.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for NTRK3 active protein | Background: NT-3 growth factor receptor is also known as neurotrophic tyrosine kinase receptor type 3 or TrkC tyrosine kinase or Trk-C receptor, is a member of the neurotrophic tyrosine receptor kinase (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. TrkC/NTRK3 is widely expressed in the developing and adult nervous system. In later embryonic development, TrkC/NTRK3 is expressed in various structures of the CNS including the caudate-putamen, septal nuclei, cerebellum, and brainstem. Other neurotrophins include nerve growth factor(NGF), neurotrophin-3 and neurotrophin-4. In the PNS, The trkC hybridization appears to correlate, both temporally and spatially, with the outgrowth of axons toward their peripheral targets. TrkC/NTRK3 is widely expressed in the three identified branches of the mammalian nervous system and appears to correlate with the expression of NT-3, its cognate ligand. The apparent colocalization of trkC transcripts with NT-3 raises the possibility this neurotrophin exerts its trophic effects by a paracrine and/or autocrine mechanism. Signaling through this kinase leads to cell differentiation and may play a role in the development of proprioceptive neurons that sense body position. Mutations in the TrkC encoding gene have been associated with medulloblastomas, secretory breast carcinomas, and other cancers. |
| Product Categories/Family for NTRK3 active protein   | Receptor Tyrosine Kinases (RTKs) Cancer Drug Targets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| References                                           | Tessarollo L, et al. (1993) trkC, a receptor for neurotrophin-3, is widely expressed in the developing nervous system and in non-neuronal tissues. Development. 118(2): 463-75.<br>Lamballe F, et al. (1994) Developmental expression of trkC, the neurotrophin-3 receptor, in the mammalian nervous system. J Neurosci. 14(1): 14-28.<br>Klein R, et al. (1994) Disruption of the neurotrophin-3 receptor gene trkC eliminates la muscle afferents and results in abnormal movements. Nature. 368(6468): 249-51.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

NCBI AND UNIPROT INFORMATION

|                                  |                                                |
|----------------------------------|------------------------------------------------|
| NCBI GI #                        | 55956794                                       |
| NCBI GeneID                      | 4916                                           |
| NCBI Accession #                 | NP_001007157.1                                 |
| NCBI GenBank Nucleotide #        | NM_001007156.2                                 |
| UniProt Accession #              | Q16288; O75682; Q12827; Q16289                 |
| Molecular Weight                 | 839                                            |
| NCBI Official Full Name          | NT-3 growth factor receptor isoform c          |
| NCBI Official Synonym Full Names | neurotrophic tyrosine kinase, receptor, type 3 |
| NCBI Official Symbol             | NTRK3                                          |

|                               |                                                                                                                                                                  |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI Official Synonym Symbols | TRKC; gp145(trkC)                                                                                                                                                |
| NCBI Protein Information      | NT-3 growth factor receptor; GP145-TrkC; ETV6-NTRK3 fusion; tyrosine kinase receptor C; ETS related protein-neurotrophic receptor tyrosine kinase fusion protein |
| UniProt Protein Name          | NT-3 growth factor receptor                                                                                                                                      |
| UniProt Gene Name             | <b>NTRK3</b>                                                                                                                                                     |
| UniProt Synonym Gene Names    | TRKC; Trk-C                                                                                                                                                      |
| UniProt Entry Name            | NTRK3_HUMAN                                                                                                                                                      |

**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.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-ntrk3-active-protein/trkc/257822>