

Recombinant rat TrkA protein

Catalog Number: ATGP4085

PRODUCT INFORMATION

Expression system

HEK293

Domain

35-418aa

UniProt No.

P35739

NCBI Accession No.

NP_067600.1

Alternative Names

High affinity nerve growth factor receptor, Neurotrophic tyrosine kinase receptor type 1, NTRK-1, NTRK1, Slow nerve growth factor receptor, p140-TrkA, Trk-A, Trk, Trka, TRK1-transforming tyrosine kinase protein, TRKAOncogene TRK, TRKTRK1, tyrosine kinase receptor A

PRODUCT SPECIFICATION

Molecular Weight

69kDa (623aa)

Concentration

1 mg/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 ability to inhibit NGF-induced proliferation assay using TF-1 human erythroleukemic cells in the presence of 0.5ng/ml of rat NGF. The ED50 range \leq 5 ng/ml.

Tag

hIgG-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.

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BACKGROUND

Description

TrkA, also known as Tyrosine kinase receptor A, is a member of the neurotrophic tyrosine kinase receptor (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. It leads to cell differentiation and may play a role in specifying sensory neuron subtypes. It has a crucial role in the development and function of the nociceptive reception system as well as the establishment of thermal regulation via sweating. In one study conducted on two rat models, an inhibition of TrkA with AR786 led to a reduction in joint swelling, joint damage, and pain caused by inflammatory arthritis. Recombinant rat TrkA, fused to hlgG-His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

Amino acid Sequence

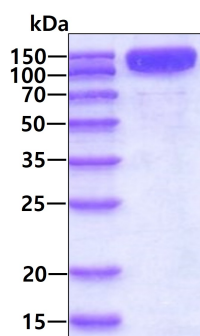
SCRETCCPVG PSGLRCTRAG TLNTRGLRG AGNLTELYVE NQRDLQRLEF EDLQGLGELR SLTIVKSGLR FVAPDAFHFT
 PRLSHLNLSS NALESLSWKT VQGLSLQDLT LSGNPLHCSC ALLWLQRWEQ EDLCGVYVYTK LQSGSGSDQF LPLGHNNSCG
 VPSVKIQMPN DSVEVGDDVF LQCQVEGQAL QQADWILTEL EGTATMKKSG DLPSLGLTLV NVTSDLNKKV VTCWAENDVG
 RAEVSVQVSV SFPASVHLGK AVEQHHCIP FSVDGQPAPS LRWFFNGSVL NETSFIFTQF LESALTNEM RHGCLRLNQP
 THVNNGNLTL LAANPYGQAA ASIMAAFMDN PFEFNPEDPI PVSFSPVDN STSRDPVEKK DETP<LEPKSC DKTHTCPPCP
 APELLGGPSV FLFPPKPKDT LMISRTPEVT CVVVDVSHED PEVKFNWYVD GVEVHNAKTK PREEQYNSTY RVVSVLTVLH
 QDWLNGKEYK CKVSNKALPA PIEKTISKAK GQPREPQVYV LPPSRDELTK NQVSLTCLVK GFYPSDIAVE WESNGQPENN
 YKTTTPVLDS DGSFFLYSKL TVDKSRWQQG NVFSCSVME ALHNHYTQKS LSLSPGKHHH HHH>

General References

Benito-Gutiérrez E, et al. (2006). Mol Cell Neurosci. 31:179-192.
 Lambiase A, et al. (2005). Natl Acad Sci. 102:16795-16800.

DATA

SDS-PAGE



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

Biological Activity

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Rat Ntrk1 inhibits the cell growth using TF-1 human erythroleukemic cells in the presence of 0.5ng/ml of rat NGF. The ED50 range \leq 5ng/ml.

