Datasheet for ABIN7317670

# TRKA Protein (AA 194-413) (His tag)

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## Overview

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| Quantity: | 100 µg |
| Target: | TRKA (NTRK1) |
| Protein Characteristics: | AA 194-413 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Biological Activity: | Active |
| Purification tag / Conjugate: | This TRKA protein is labelled with His tag. |

## Product Details

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| Purpose: | Recombinant Human TrkA/NTRK1 Protein (aa 194-413, His Tag)(Active) |
| Sequence: | Pro 194-Glu 413 |
| Characteristics: | A DNA sequence encoding the amino acid sequence (Pro 194-Glu 413) of human NTRK1 (NP_002520.2), corresponding to the Ig-like C2-type 1 & 2 domains, was expressed and purified, with a N-terminal polyhistidine tag. |
| Purity: | > 95 % as determined by reducing SDS-PAGE. |
| Endotoxin Level: | < 1.0 EU per µg as determined by the LAL method. |
| Biological Activity Comment: | Measured by its ability to inhibit NGF-induced proliferation of TF1 human erythroleukemic cells. The ED50 for this effect is typically 0.5-4 µg/ml in the presence of 10 ng/mL of human NGF. |

## Target Details

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| Target: | TRKA (NTRK1) |
| Alternative Name: | TrkA/NTRK1 (NTRK1 Products) |
| Background: | Background: TRKA is a member of the neurotrophic tyrosine kinase receptor (NTKR) family. It is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. Isoform TrkA-III promotes angiogenesis and has oncogenic activity when overexpressed. Isoform TrkA-I is found in most non-neuronal tissues. Isoform TrkA-II is primarily expressed in neuronal cells. TrkA-III is specifically expressed by pluripotent neural stem and neural crest progenitors. The presence of NTRK1 leads to cell differentiation and may play a role in specifying sensory neuron subtypes. Mutations in TRKA gene have been associated with congenital insensitivity to pain, anhidrosis, self-mutilating behavior, mental retardation and cancer. It was originally identified as an oncogene as it is commonly mutated in cancers, particularly colon and thyroid carcinomas. TRKA is required for high-affinity binding to nerve growth factor (NGF), neurotrophin-3 and neurotrophin-4/5 but not brain-derived neurotrophic factor (BDNF). Known substrates for the Trk receptors are SHC1, PI 3-kinase, and PLC-gamma-1. NTRK1 has a crucial role in the development and function of the nociceptive reception system as well as establishment of thermal regulation via sweating. It also activates ERK1 by either SHC1- or PLC-gamma-1-dependent signaling pathway. Defects in NTRK1 are a cause of congenital insensitivity to pain with anhidrosis and thyroid papillary carcinoma.Immune Checkpoint Immunotherapy Cancer Immunotherapy Targeted Therapy Synonym: MTC;p140-TrkA;TRK;Trk-A;TRK1;TRKA |
| Molecular Weight: | 26 kDa |
| NCBI Accession: | NP_002520 |
| Pathways: | RTK Signaling, Neurotrophin Signaling Pathway, cAMP Metabolic Process |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | Please refer to the printed manual for detailed information. |
| Buffer: | Lyophilized from sterile PBS, pH 7.4 |
| Storage: | 4 °C,-20 °C,-80 °C |

## Handling

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| Storage Comment: | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |