

### 37-1373: Mouse TrkA / NTRK1 Recombinant Protein (Fc Tag)(Discontinued)

**Reactivity :** Mouse

**Alternative Name :** C80751 Protein, Mouse; Tkr Protein, Mouse; trk Protein, Mouse; TrkA Protein, Mouse

#### Description

##### Source : HEK293 Cells

TRKA is a member of the neurotrophic tyrosine kinase receptor (NTRK) 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. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

#### Product Info

**Amount :** Mouse TrkA / NTRK1 Recombinant Protein (Fc Tag)(Discontinued) / 100 µg

**Purification :** > 90 % as determined by SDS-PAGE

Formulation Lyophilized from sterile PBS, pH 7.4.

**Content :** Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

**Storage condition :** Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

**Amino Acid :** Met1-Gly420

#### Application Note

Measured by its ability to inhibit NGF-induced proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 0.02-0.08 Åµg/mL in the presence of 10 ng/mL of recombinant mouse NGF.

Endotoxin :< 1.0 EU per Åµg of the protein as determined by the LAL method

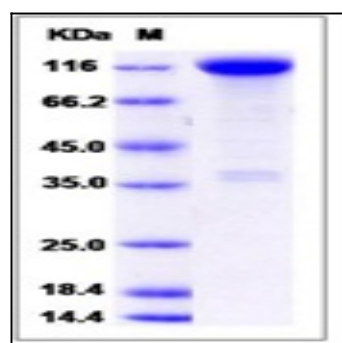


Fig 1: Mouse TrkA / NTRK1 Recombinant Protein (Fc Tag)

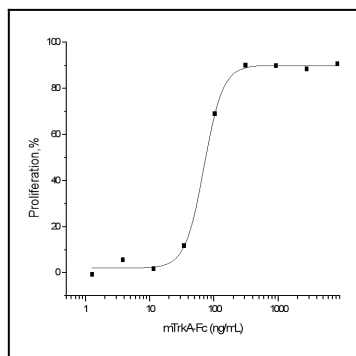


Fig 2: Mouse TrkA / NTRK1 Recombinant Protein (Fc Tag) measured by its ability to inhibit NGF-induced proliferation of TF-1 human erythroleukemic cells.