

Recombinant Rabbit NTRK1 Protein, His-tagged, Alexa Fluor 488 conjugated

Cat. No. NTRK1-509RAF488 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Alexa Fluor 488 conjugated recombinant Rabbit NTRK1 (XP_008262512.1) (Ala33-Glu414) was expressed with a polyhistidine tag at the C-terminus.

Species

Rabbit

Source

HEK293

ProteinLength

Ala33-Glu414 393

Description

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

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and function of the n centigradeiceptive 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.

Form Lyophilized

Molecular Mass 43.4 kDa

N-terminal Sequence Analysis Ala 33

Endotoxin < 1.0 EU/ µg protein as determined by the LAL method.

Purity > 95 % as determined by SDS-PAGE

Characteristic
 Disulfide-linked homodimer
 Labeled with Alexa Fluor 488 via amines
 Excitation Wavelength: 488 nm
 Emission Wavelength: 515-545 nm

Storage
 Samples are stable for up to twelve months from date of receipt at -70 centigrade. Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

Storage Buffer
 Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.

Reconstitution
 It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 µg/µL. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

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Conjugation Alexa Fluor 488

GENE INFORMATION

Gene Name NTRK1 neurotrophic tyrosine kinase, receptor, type 1 [*Oryctolagus cuniculus*]

Official Symbol NTRK1

Synonyms NTRK1; neurotrophic tyrosine kinase, receptor, type 1;

Gene ID 100354292

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