

## Product datasheet

# Recombinant human TPM3 + TRKA protein ab191465

[2 Images](#)

### Description

<b>Product name</b>	Recombinant human TPM3 + TRKA protein	
<b>Biological activity</b>	Specific Activity: 12 nmol/min/mg.	
<b>Purity</b>	> 70 % SDS-PAGE. Affinity purified.	
<b>Expression system</b>	Baculovirus infected Sf9 cells	
<b>Accession</b>	<u><b>P06753</b></u> <u><b>P04629</b></u>	
<b>Protein length</b>	Protein fragment	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Amino Acid Sequence 1</b>		
<b>Species</b>	Human	
<b>Sequence</b>	MMEAIAKKKMQMLKLDKENALDRAEQAEAEQKQAEERSK QLEDELAAMQKK LKGTEDELDKYSEALKDAQEKLELAEKKAADAEAEVASL NRRQLVEEEL DRAQERLATALQKLEEAEKAADESERGMKVIENRALKDE EKMELQEIQLK EAKHIAEEADRKYEEVARKLVIIEGDLERTEERAELAESKC SELEEEELKN VTNNLKSLEAQAEKYMMEAIAKKKMQ MLKLDKENAL DRAEQAEAEQ KQAEERSKQL EDELAAMQKK LKGTEDELDK YSEALKDAQE KLELAEKKAA DAEAEVASLN RRIQLVEEEL DRAQERLATA LQKLEEAEKA ADESERGMKV IENRALKDEE KMELQEIQLK EAKHIAEEAD RKYEEVARKL VIIEGDLERT EERAELAESK CSELEEEELKN VTNNLKSLEA QAEKYSQKED KYEEEEIKILT DKLKEAETRA EFAERSVAKL EKTIDDLE	
<b>Predicted molecular weight</b>	105 kDa including tags	
<b>Amino acids</b>	1 to 258	
<b>Tags</b>	GST tag N-Terminus	
<b>Amino Acid Sequence 2</b>		

<b>Species</b>	Human
<b>Sequence</b>	<p>DTNSTSGDPVEKKDETPFGVSVAVGLAVFACLFLSTLLL  LNKCGRRNKF  GINRPAVLAPEDGLAMSLHFMTLGGSSLSPTTEGKGSGLQ  GHIIENPQYFS  DACVHHIKRRDVLKWELGEGAFGKVFLAECHNLLPEQDK  MLVAVKALKE  ASESARQDFQREAELLTMLQHQHIVRFFGVCTEGRPLLM  VFEYMRHGDLN  RFLRSHGPDALLAGGEDVAPGPLGLGQLLAVASQVAAG  MVYLAGLHFVH  RDLATRNLVGGQLVVKIGDFGMSRDIYSTDYRVGGRTM  LPIRWMPPE  ILYRKFTTESDVWSFGVVLWEIFTYKQPWYQLSNTEAIDC  ITQGRELER  PRACPPEVYAIMRGCWQREPQQRHSIKDVHARLQALAQA  PPVYLDVLG</p>
<b>Amino acids</b>	399 to 796

## Specifications

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Our **Abpromise guarantee** covers the use of **ab191465** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE
	Functional Studies

<b>Form</b>	Liquid
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## Preparation and Storage

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<b>Stability and Storage</b>	<p>Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 7.5</p> <p>Preservative: 1.02% Imidazole</p> <p>Constituents: 1.71% Sodium phosphate, 1.74% Sodium chloride, 0.001% PMSF, 0.004% DTT, 25% Glycerol (glycerin, glycerine)</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
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## General Info

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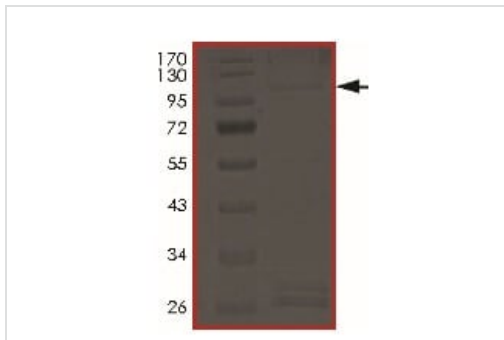
<b>Relevance</b>	<p>Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand, it can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival. Upon dimeric NGF ligand-binding, undergoes homodimerization, autophosphorylation and activation. Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades driving cell survival and differentiation. Through SHC1 and FRS2 activates a GRB2-Ras-MAPK cascade that regulates</p>
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cell differentiation and survival. Through PLCG1 controls NF-Kappa-B activation and the transcription of genes involved in cell survival. Through SHC1 and SH2B1 controls a Ras-PI3 kinase-AKT1 signaling cascade that is also regulating survival. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors.

### Cellular localization

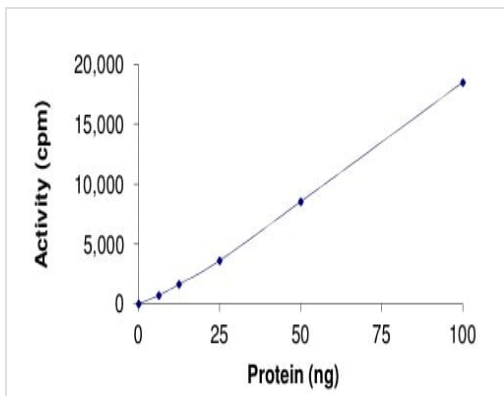
Cell membrane; Single-pass type I membrane protein. Early endosome membrane; Single-pass type I membrane protein By similarity. Late endosome membrane; Single-pass type I membrane protein By similarity. Note: Internalized to endosomes upon binding of NGF or NTF3 and further transported to the cell body via a retrograde axonal transport. Localized at cell membrane and early endosomes before nerve growth factor (NGF) stimulation. Recruited to late endosomes after NGF stimulation. Colocalized with RAPGEF2 at late endosomes

### Images



SDS-PAGE analysis of ab191465

SDS-PAGE - Recombinant human TPM3 + TRKA protein (ab191465)



Specific Activity: Sample Kinase Activity Plot. The specific activity of ab191465 was determined to be 12 nmol /min/mg as per activity assay protocol.

Functional Studies - Recombinant human TPM3 + TRKA protein (ab191465)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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