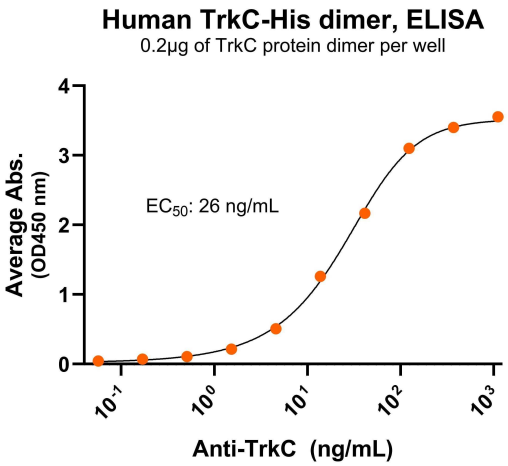
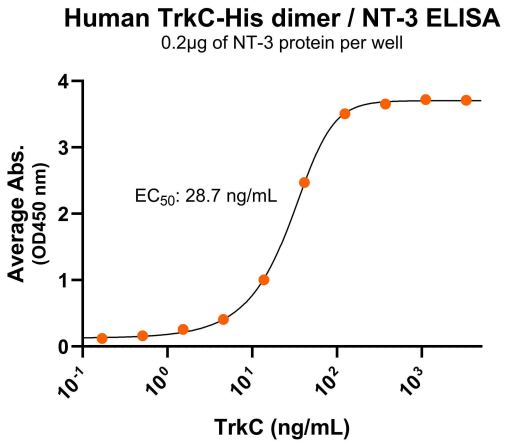
Bioactive, Recombinant Human TrkC Protein Dimer, His Tag
Product Code: CSP-25169-01
For Research Use Only (RUO)

Bioactivity – Antibody Binding



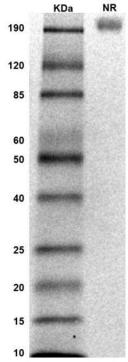
Immobilized human TrkC protein dimer, His-tag (CSP-25169-01) at 2 μg/mL (100 μL/well) can bind anti-human TrkC monoclonal antibody with half maximal effective concentration (EC50) range of 13-52.1 ng/mL (QC tested).

Bioactivity – Ligand Binding



Immobilized human NT-3 protein at 2 μg/mL (100 μL/well) can bind human TrkC protein dimer, His-tag (CSP-25169-01) with half maximal effective concentration (EC50) range of 14.4-57.4 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: TrkC dimer under non-reduced condition

The migration range of the dimer protein with glycosylation under non-reducing condition is ~190 kDa on SDS PAGE.

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Expression Host
HEK293T

Protein Name
TrkC

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)
neurotrophic receptor tyrosine kinase 3, NTRK3, NT-3 growth factor receptor, neurotrophic tyrosine kinase receptor type 3, TrkC tyrosine kinase, gp145, GP145-TrkC, TRKC

Protein Construct
TrkC dimer protein contains the TrkC extracellular domain (UniProt# Q16288) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
C32-T429

SDS-Page Molecular Weight
106 kDa. The migration range of the dimer protein with glycosylation under non-reducing condition is ~190 kDa on SDS PAGE.

Formulation
0.22µm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Human tropomyosin receptor kinase C (TrkC) is part of the family of receptor tyrosine kinases and primarily the receptor for neurotrophin-3 (NT-3). TrkC is also known as neurotrophic receptor tyrosine kinase 3 (NTRK3), NT-3 growth factor receptor, neurotrophic tyrosine kinase receptor type 3, gp145, and GP145-TrkC. TrkC is a Type I transmembrane protein. It contains an extracellular domain with two cysteine-rich clusters (C1 and C2), three leucine-rich 24-residue repeats (LRR1–3), and two immunoglobulin-like domains (Ig1 and Ig2) followed by a transmembrane domain and a cytoplasmic domain. TrkC is a high affinity receptor for NT-3, and ligand binding induces receptor dimerization which is required for trans-autophosphorylation that triggers downstream signaling cascades. TrkC plays a role in many cancers, therefore, a recombinant protein mimicking the dimer conformation can be crucial for cancer therapeutic discovery.