Datasheet for ABIN7043071

anti-CNTF Receptor alpha antibody (Extracellular)

3 Images

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Overview

Quantity:	50 µL
Target:	CNTF Receptor alpha (CNTFR)
Binding Specificity:	AA 164-178, Extracellular
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This CNTF Receptor alpha antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (IF), Live Cell Imaging (LCI)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to CNTF Receptor α
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: CHIRYMHLFSTIKYK, corresponding to amino acid residues 164-178 of rat CNTFRalpha
Isotype:	IgG
Specificity:	Extracellular
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Mouse,human - identical
Characteristics:	Anti-CNTFRα (extracellular) Antibody (ABIN7043071 and ABIN7044187)) is a highly specific

Product Details

	antibody directed against an epitope of the rat protein. The antibody can be used in western blot and immunohistochemistry applications. The antibody recognizes an extracellular epitope and can potentially detect the receptor in living cells. It has been designed to recognize CNTF receptor α from human, mouse, and rat samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	CNTF Receptor alpha (CNTFR)
Alternative Name:	CNTFR (CNTFR Products)
Background:	Ciliary neurotrophic factor receptor subunit alpha, CNTF receptor alpha, CNTFR alpha,CNTF is a polypeptide trophic factor, member of the alpha-helical cytokine superfamily1. It was initially purified from the chick eye on the basis of its ability to promote survival of E8 chick ciliary ganglion neurons in culture2. CNTF is synthesized by glia both in the CNS and PNS3 and it has been demonstrated that CNTF is ubiquitously distributed in neurons and glia throughout the rodent brain4. CNTF effects are mediated by a tripartite receptor complex consisting of two signal-transducing subunits (leukemia inhibitory factor receptor, gp130) and a CNTF-specific ligand-binding-subunit (CNTFRα)5.CNTFRα is anchored to the membrane by a glycosyl-phosphatidylinositol (GPI) linkage and lacks the intracellular signaling moiety. It can be cleaved from the GPI anchor to yield a soluble form of the receptor (sCNTFRα)6,7.CNTF binds to CNTFRα, the latter associates with gp130 which recruits LIFR. This leads to the activation of a signaling cascade involving the JAK/STAT pathway7.CNTFRα knockout mice die within 24 hours after birth as opposed to CNTF knock animals which are viable. This strongly suggest that CNTFRα has other ligands besides CNTF. Indeed, CLC/CLF complex (cardiotrophin like cytokine/cytokine-like factor-1) binds CNTFRα and activates a similar signaling pathway to that of CNTF8. Alternative names: CNTFRalpha, Ciliary neurotrophic factor receptor subunit alpha, CNTF receptor alpha, CNTFR alpha
Gene ID:	313173
NCBI Accession:	NM_001207011
UniProt:	Q08406
Pathways:	JAK-STAT Signaling, Feeding Behaviour

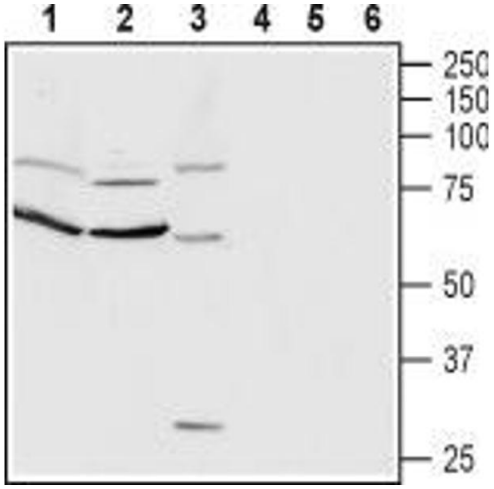
Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400 Application Dilutions Western blot wb: 1:200
Comment:	Negative Control: BLP-CR051 Blocking Peptide: BLP-CR051
Restrictions:	For Research Use only

Handling

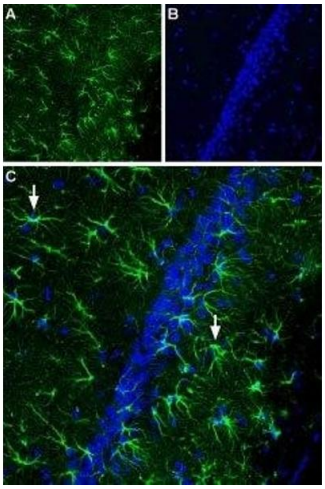
Format:	Lyophilized
Reconstitution:	Recosntitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).

Images



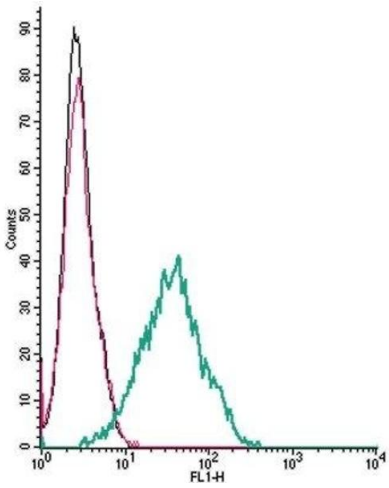
Western Blotting

Image 1. Western blot analysis of rat brain (lanes 1 and 4), rat cortex (lanes 2 and 5) and mouse brain (lanes 3 and 6) lysates: - 1-3. Anti-CNTFRα (extracellular) Antibody (ABIN7043071 and ABIN7044187), (1:200).4-6. Anti-CNTFR α (extracellular) Antibody, preincubated with CNTFRα (extracellular) Blocking Peptide (#BLP-CR051).



Immunohistochemistry

Image 2. Expression of CNTF receptor α in rat hippocampus - Immunohistochemical staining of rat hippocampal CA1 region using Anti-CNTFRα (extracellular) Antibody (ABIN7043071 and ABIN7044187), (1:400). A. CNTFRα staining (green) appears in astrocytes in the CA1 region (arrows). B. Nuclei staining using DAPI as the counterstain (green). C. Merged image of panels A and B.



Flow Cytometry

Image 3. Cell surface detection of CNTF receptor α by indirect flow cytometry in live intact mouse BV-2 microglia cells:(black line) Cells.(red line) Cells + goat-anti-rabbit-FITC.(green line) Cells + Anti-CNTFRα (extracellular) Antibody (ABIN7043071 and ABIN7044187), (5 µg) + goat-anti-rabbit-FITC.