Datasheet for ABIN7043437

anti-Plexin A2 antibody (Extracellular)

2 Images

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Overview

Quantity:	25 µL
Target:	Plexin A2 (Plxna2)
Binding Specificity:	AA 205-218, Extracellular
Reactivity:	Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Plexin A2 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 Plexin-A2
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)RDPESSAMLDYELH, corresponding to amino acid residues 205-218 of mouse PLXNA2
Isotype:	IgG
Specificity:	Extracellular, N-terminus
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat,human - identical
Characteristics:	Anti-Plexin-A2 (extracellular) Antibody is directed against an epitope of mouse Plexin-A2. Anti-

Product Details

	Plexin-A2 (extracellular) Antibody (ABIN7043437, ABIN7045130 and ABIN7045131)) can be used in western blot and immunohistrochemistry applications. The antibody recognizes an extracellular epitope and is thus ideal for detecting PLXNA2 in living cells. It has been designed to recognize PLXNA2 from rat, mouse and human samples.
Purification:	Affinity purified on immobilized antigen.

Target Details

Target:	Plexin A2 (Plxna2)
Alternative Name:	PLXNA2 (Plxna2 Products)
Background:	PLXNA2, PLXN2, Semaphorin receptor OCT,The Plexin gene family is comprised of at least 9 members in 4 subfamilies. Plexins are widely expressed in neurons but have been also detected in epithelial cells1. Plexins closely interact with a large family of proteins called Semaphorins which control a variety of processes in the CNS including cell migration and axonal growth. Plexins and Semaphorins share a common feature of a conserved 500 amino acid "sema" domain2. The ectodomain of PLXNA2 is an N-terminal seven bladed β-propeller sema domain followed by a cysteine rich PSI (plexin-semaphorin-integrin) domain. PLXNA2 has four N-terminal domains and unlike semaphorins the sema domain of unliganded PLXNA2 does not homodimerize readily.Many of the functions of Class 3 semaphorins (Sema3A-Sema3G) are mediated by Plexin-A2 (PLXNA) and other A-plexins. Sema3 signaling depends on semaphorin interacting with one of the two Nrp co-receptors that associate with PLXNA to generate holoreceptors.PLXNA also interacts with semaphorin 6A (Sema6A). Before binding, the Sema6A ectodomain can be found in a 'face-to-face' homodimer arrangement, similar to the arrangement in Sema3, whereas PLXNA is in an unexpected 'head-on' homodimer arrangement. The structure of the Sema6A-PLXNA signaling complex is a 2:2 heterotetramer3.In prostate cancer TMPRSS:ERG gene fusion causes aberrant expression of the transcription factor ERG and the induction of cell migration and invasion. TMPRSS:ERG upregulates PLXNA expression and elevated PLXNA levels were found in prostate cancer cells. Levels of PLXNA were even higher in metastatic prostate cancer than in localized tumors suggesting PLXNA may play a role in the disease's development. Alternative names: Plexin-A2, PLXNA2, PLXN2, Semaphorin receptor OCT
Gene ID:	18845
NCBI Accession:	NM_025179

Target Details

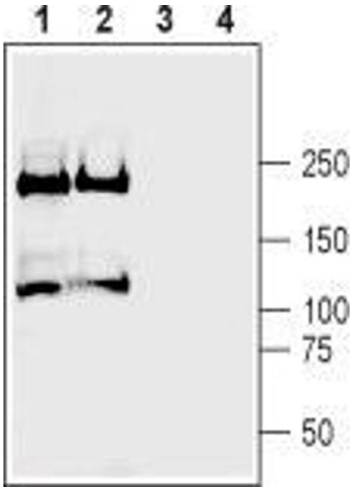
UniProt:	P70207

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-PR082 Blocking Peptide: BLP-PR082
Restrictions:	For Research Use only

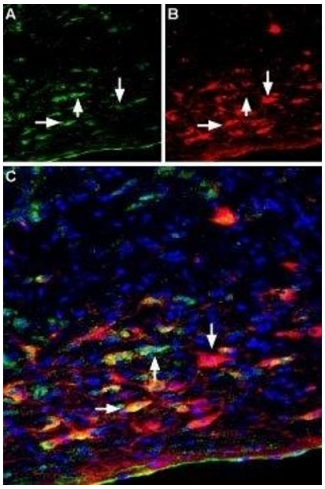
Handling

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).



Western Blotting

Image 1. Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: - 1,2. Anti-Plexin-A2 (extracellular) Antibody (ABIN7043437, ABIN7045130 and ABIN7045131), (1:200).3,4. Anti-Plexin-A2 (extracellular) Antibody, preincubated with Plexin-A2 (extracellular) Blocking Peptide (#BLP-PR082).



Immunohistochemistry

Image 2. Multiplex staining of Plexin-A2 and p75NTR in rat brain - Immunohistochemical staining of perfusion-fixed frozen rat brain sections using Anti-Plexin-A2 (extracellular) Antibody (ABIN7043437, ABIN7045130 and ABIN7045131), (1:400) and mouse Mouse Anti-Rat p75 NGF Receptor (extracellular) Antibody (#AN-170), (1:300). A. Sections of rat horizontal diagonal band (HDB) were stained for PLXNA2 (green). B. Same sections were stained for p75NTR (red). C. Merge of the two images reveals cells expressing both PLXNA2 and p75NTR (horizontal arrows), cells expressing only PLXNA2 (upwards pointing arrows) or cells expressing only p75NTR (downwards pointing arrows) can also be observed. Cell nuclei are stained with DAPI (blue).