abcam

Product datasheet

Anti-TrkA antibody ab43416

画像数 1

製品の概要

製品名	Anti-TrkA antibody
製品の詳細	Mouse polyclonal to TrkA
由来種	Mouse
アプリケーション	**適用あり:** WB
種交差性	**交差種:** Rat
免疫原	Recombinant fusion protein: HFTPRLSHLN LSSNALESLS WKTVQGLSLQ DLTLSGNPLH CSCALLWLQR WEQEDLCGVY TQKLQGSGSG DQFLPLGHNN SCGVPSVKIQ MPNDSVEVGD , corresponding to amino acids 112-211 of Rat TrkA Run BLAST with ExPASy Run BLAST with NCBI
特記事項	This antibody was raised by a genetic immunization technique. Genetic immunization can be used to generate antibodies by directly delivering antigen-coding DNA into the animal, rather than injecting a protein or peptide (Tang et al. PubMed: 1545867; Chambers and Johnston PubMed 12910245; Barry and Johnston PubMed: 9234514). The animal's cells produce the protein, which stimulates the animal's immune system to produce antibodies against that particular protein. A vector coding for a partial fusion protein was used for genetic immunisation of a mouse and the resulting serum was tested in Western blot against an E.coli lysate containing that partial fusion protein. Genetic immunization offers enormous advantages over the traditional protein-based immunization method. DNA is faster, cheaper and easier to produce and can be produced by standard techniques readily amenable to automation. Furthermore, the antibodies generated by genetic immunization are usually of superior quality with regard to specificity, affinity and recognizing the native protein

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	Preservative: None Constituents: 50% Glycerol
精製度	Whole antiserum
一次抗体 備考	This antibody was raised by a genetic immunization technique. Genetic immunization can be used to generate antibodies by directly delivering antigen-coding DNA into the animal, rather

than injecting a protein or peptide (Tang et al. PubMed: 1545867; Chambers and Johnston PubMed 12910245; Barry and Johnston PubMed: 9234514). The animal's cells produce the protein, which stimulates the animal's immune system to produce antibodies against that particular protein. A vector coding for a partial fusion protein was used for genetic immunisation of a mouse and the resulting serum was tested in Western blot against an E.coli lysate containing that partial fusion protein. Genetic immunization offers enormous advantages over the traditional protein-based immunization method. DNA is faster, cheaper and easier to produce and can be produced by standard techniques readily amenable to automation. Furthermore, the antibodies generated by genetic immunization are usually of superior quality with regard to specificity, affinity and recognizing the native protein

ポリ/モノ	**ポリクローナル**
アイソタイプ	IgG

アプリケーション

Our Abpromise guarantee covers the use of **ab43416** in the following tested applications.

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

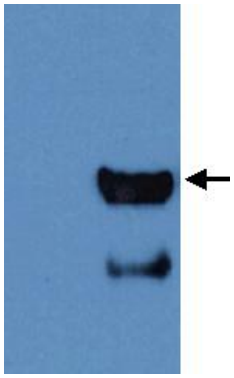
アプリケーション	Abreviews	特記事項
WB		1/1000. Detects a band of approximately 38 kDa (predicted molecular weight: 87 kDa). This antibody has been tested in Western blot against an *E.coli* lysate containing the partial recombinant fusion protein used as an immunogen. We have no data on detection of endogenous protein.

ターゲット情報

機能	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 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. Isoform TrkA-III is resistant to NGF, constitutively activates AKT1 and NF-kappa-B and is unable to activate the Ras-MAPK signaling cascade. Antagonizes the anti-proliferative NGF-NTRK1 signaling that promotes neuronal precursors differentiation. Isoform TrkA-III promotes angiogenesis and has oncogenic activity when overexpressed.
組織特異性	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.

関連疾患	Congenital insensitivity to pain with anhidrosis Chromosomal aberrations involving NTRK1 are found in papillary thyroid carcinomas (PTCs) (PubMed:2869410, PubMed:7565764, PubMed:1532241). Translocation t(1;3)(q21;q11) with TFG generates the TRKT3 (TRK-T3) transcript by fusing TFG to the 3'-end of NTRK1 (PubMed:7565764). A rearrangement with TPM3 generates the TRK transcript by fusing TPM3 to the 3'-end of NTRK1 (PubMed:2869410). An intrachromosomal rearrangement that links the protein kinase domain of NTRK1 to the 5'-end of the TPR gene forms the fusion protein TRK-T1. TRK-T1 is a 55 kDa protein reacting with antibodies against the C-terminus of the NTRK1 protein (PubMed:1532241).
配列類似性	Belongs to the protein kinase superfamily. Tyr protein kinase family. Insulin receptor subfamily. Contains 2 Ig-like C2-type (immunoglobulin-like) domains. Contains 2 LRR (leucine-rich) repeats. Contains 1 LRRCT domain. Contains 1 protein kinase domain.
ドメイン	The transmembrane domain mediates interaction with KIDINS220. The extracellular domain mediates interaction with NGFR.
翻訳後修飾	Ligand-mediated autophosphorylation. Interaction with SQSTM1 is phosphotyrosine-dependent. Autophosphorylation at Tyr-496 mediates interaction and phosphorylation of SHC1. N-glycosylated (Probable). Isoform TrkA-I is N-glycosylated. Ubiquitinated. Undergoes polyubiquitination upon activation; regulated by NGFR. Ubiquitination regulates the internalization of the receptor.
細胞内局在	Cell membrane. Early endosome membrane. Late endosome membrane. 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 (By similarity).

画像



Western blot - Anti-TrkA antibody (ab43416)

All lanes : Anti-TrkA antibody (ab43416) at 1/1000 dilution

Lane 1 : (Left) ~20ug of a total protein extract from E coli with ~50ng to 100 ng of a tagged fusion protein of an irrelevant antigen
Lane 2 : (Right) ~20ug of a total protein extract from E coli with ~50ng to 500ng of the antigen (tag-antigen fusion protein)

Secondary
All lanes : Rabbit anti-mouse IgG + IgM, (H+L) horseradish peroxidase conjugated at 1/5000 dilution

Predicted band size: 87 kDa

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