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SORCS2 Rabbit pAb

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Catalog # AP54688

Product Information

Application	WB
Primary Accession	Q96PQ0
Reactivity	Human
Predicted	Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	128152
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SORCS2
Epitope Specificity	201-300/1159
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Membrane; Single pass type I membrane protein.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	There are three SorCS genes that have diverse, partially overlapping functions in the central nervous system. In the developing and mature central nervous system, SorCS1, SorCS2 and SorCS3 genes are expressed in a combinatorial, non-overlapping pattern. SorCS proteins show homology to the mosaic receptor SorLA and the neurotensin receptor sortilin, based on a common VPS10 domain, which is the hallmark of the SorCS receptor family. SorCS2 (sortilin-related VPS10 domain containing receptor 2) is a 1,150 amino acid single-pass type I membrane protein that is highly expressed in brain and kidney. Containing six BNR repeats and a single PKD domain, SorCS2 is encoded by a gene that maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes.

Additional Information

Gene ID	57537
Other Names	VPS10 domain-containing receptor SorCS2, SorCS2 122 kDa chain, SorCS2 104 kDa chain, SorCS2 18 kDa chain, SORCS2, KIAA1329
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

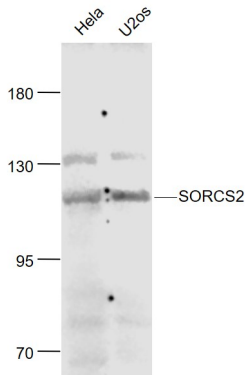
Name	SORCS2
Synonyms	KIAA1329
Function	The heterodimer formed by NGFR and SORCS2 functions as receptor for the precursor forms of NGF (proNGF) and BDNF (proBDNF) (PubMed:22155786, PubMed:24908487). ProNGF and proBDNF binding both promote axon growth cone collapse (in vitro) (PubMed:22155786, PubMed:24908487). Plays a role in the regulation of dendritic spine density in hippocampus neurons (By similarity). Required for normal neurite branching and extension in response to BDNF (PubMed:27457814). Plays a role in BDNF-dependent hippocampal synaptic plasticity. Together with NGFR and NTRK2, is required both for BDNF-mediated synaptic long-term depression and long-term potentiation (PubMed:27457814). ProNGF binding promotes dissociation of TRIO from the heterodimer, which leads to inactivation of RAC1 and/or RAC2 and subsequent reorganization of the actin cytoskeleton (PubMed:22155786). Together with the retromer complex subunit VPS35, required for normal expression of GRIN2A at synapses and dendritic cell membranes. Required for normal expression of the amino acid transporter SLC1A1 at the cell membrane, and thereby contributes to protect cells against oxidative stress (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection {ECO:0000250|UniProtKB:Q9EPR5}. Cytoplasmic vesicle membrane; Single-pass type I membrane protein. Early endosome membrane {ECO:0000250|UniProtKB:Q9EPR5}. Recycling endosome membrane {ECO:0000250|UniProtKB:Q9EPR5}. Synapse, synaptosome {ECO:0000250|UniProtKB:Q9EPR5}. Perikaryon. Cell projection, dendrite. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q9EPR5}. Postsynaptic density membrane {ECO:0000250|UniProtKB:Q9EPR5}
Tissue Location	Detected on neurons in the caudate region (PubMed:28469074). Detected on neurons in the hippocampus (at protein level) (PubMed:30840898). Highly expressed in brain and kidney Detected at low levels in heart, liver, small intestine, skeletal muscle and thymus (PubMed:11499680).

Background

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Images

Sample:
Hela(Human) Cell Lysate at 30 ug
U2os(Human) Cell Lysate at 30 ug
Primary: Anti- SORCS2 (AP54688) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 123 kD
Observed band size: 123 kD



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.