

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects human and mouse SorCS3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human SorCS1 is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 339615
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse SorCS3 Glu34-Ser1122 Accession # Q8VI51
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SorCS3 is a type I transmembrane receptor of the mammalian Vps10p (vacuolar protein-sorting 10 protein) family of receptors that includes sortilin, SorLA, and three SorCS proteins (1, 2). It is synthesized as a 1219 amino acid (aa) preproform with a 33 aa signal sequence and a 100 aa propeptide. After proteolytic release of the propeptide at a furin-type consensus sequence, the mature SorCS3 is a 1086 aa, 100 - 110 kDa protein with a 992 aa extracellular/luminal domain (ECD), a 21 aa transmembrane domain and a 73 aa cytoplasmic domain. Mouse SorCS3 ECD shares 98%, 92%, 91% and 89% aa identity with rat, human, bovine and canine SorCS3 ECD, respectively. It also shares 65% and 44% aa identity with mouse SorCS1 and SorCS2 ECD, respectively. The ECD contains an imperfect leucine-rich repeat (LRR) and a Vps10p domain that binds both pro- and mature NGF (2, 3). The metalloproteinase TACE/ADAM17 is able to cleave SorCS3 near the membrane either constitutively, or at an increased rate when induced by phorbol esters (4). The shed ECD is able to bind PDGF-BB and the NGF propeptide (4). Unlike sortilin, the SorCS3 propeptide has no known function; it does not block NGF binding or propeptide cleavage (3, 5). SorCS3 is predominantly expressed on the plasma membrane (3). It can be slowly internalized but, despite the presence of a sorting domain, there is no evidence for SorCS3-mediated intracellular trafficking activity (3). It is expressed in the embryonic and adult central nervous system in areas distinct from that of SorCS1 and SorCS2 (1). Neuronal activity upregulates SorCS3 expression in the hippocampus (1).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.