

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SorCS1 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant mouse SorCS1 is observed and less than 1% cross-reactivity with recombinant human (rh) SorCS2 and rhSorCS3 is observed
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SorCS1 Ser111-Ser1099 (Ser231Gly) Accession # Q8WY21.3
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 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.
Immunocytochemistry	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

SorCS1 is a type I transmembrane receptor of the mammalian Vps10p (vacuolar protein-sorting 10 protein) family (1, 2). These sorting receptors include sortilin, SorLA, and three SorCS proteins. Three splicing variants (SorCS1a, b and c) differ only in their cytoplasmic domains (3). All variants are predominantly expressed in the central nervous system, but SorCS1 can also be identified in heart, kidney and pancreatic islets (2-5). SorCS1a mediates endocytosis, and only ~10% of it is expressed on the cell surface. SorCS1b shows higher surface expression (~45%) and is much less involved in endocytosis. SorCS1c is intermediate. Human SorCS1a is synthesized as a 1159 amino acid (aa) preproform with a 33 aa signal sequence and a 77 aa propeptide. After proteolytic processing at a furin-type consensus sequence, the mature SorCS1a is a 1049 aa, 130 kDa protein with a 989 aa extracellular/luminal domain (ECD). Within the ECD, human SorCS1 shares 93%, 94%, 93% and 98% aa identity with mouse, rat, bovine and canine SorCS1, respectively. It also shares 70% and 46% aa identity with the ECD of human SorCS3 and SorCS2, respectively. The ECD contains an imperfect leucine-rich repeat (LRR) and a Vps10p domain and binds the growth factor PDGF-BB (1, 2, 6). Expression in the hippocampus indicates that SorCS1 may modulate PDGF-BB activity in this location (6). SorCS1 has also been identified as a susceptibility gene for type 2 diabetes in overweight females (4). Consequently, it has been proposed to affect insulin secretion by modifying PDGF-mediated growth of the islet vasculature (7). The 80 kDa ECD may be constitutively or inducibly shed, mainly via the metalloproteinase TACE/ADAM17 (6). The shed soluble form also binds PDGF. The cellular portion appears to undergo regulated intramembrane proteolysis (8).

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.