

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SorCS3 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 40% cross-reactivity with recombinant mouse SorCS3 is observed and 5% cross-reactivity with recombinant human SorCS1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SorCS3 Glu34-Ser1125 Accession # Q9UPU3
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.

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 (sortilin-related YPS10 domain containing receptor 3) is a type I transmembrane receptor that belongs to the mammalian Vps10p (vacuolar protein-sorting 10 protein) family of sorting receptors. This family includes sortilin, SorLA, and three SorCS proteins (1, 2). It is synthesized as a 1222 amino acid (aa) preproform with a 33 aa signal sequence and a 100 aa propeptide. After proteolytic processing at a furin-type consensus sequence, mature SorCS3 is generated that is 100-110 kDa in size and 1089 aa in length. It contains a 992 aa extracellular/luminal domain (ECD), a 21 aa transmembrane segment and a 76 aa cytoplasmic domain. Human SorCS3 ECD shares 92%, 93%, 94% and 91% aa identity with mouse, rat, bovine and canine SorCS3 ECD, respectively. It also shares 70% and 46% aa identity with human 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 ECD may be shed constitutively, or up-regulated when induced by phorbol esters (4). The metalloproteinase TACE/ADAM17 is known to cleave SorCS3 near the membrane (4). The shed ECD is able to bind PDGF-BB and the NGF propeptide (4, 5). The function of the SorCS3 propeptide is unknown. It does not block activity or influence protein processing in a manner analogous to the sortilin propeptide (3, 5). SorCS3 is predominantly expressed on the plasma membrane where it can be slowly internalized (3). Despite the presence of a sorting domain, there is no evidence for SorCS3-mediated intracellular trafficking activity (3). It is expressed in mouse embryonic and adult central nervous system in areas distinct from that of SorCS1 and SorCS2 (1). Neuronal activity up-regulates SorCS3 expression in the mouse hippocampus (1).

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