Human SorCS2 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF4238

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SorCS2 in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 20% cross-reactivity with recombinant mouse (rm) SorCS2 is observed and less than 1% cross-reactivity with recombinant human (rh) SorCS1 and rhSorCS3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	NS0-derived recombinant human SorCS2 Ser70-Gly1078 Accession # Q96PQ0
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

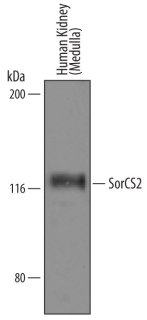
APPLICATIONS

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.*

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

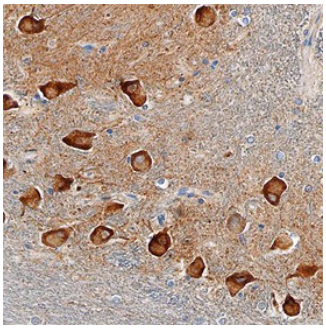
DATA

Western Blot



Detection of Human SorCS2 by Western Blot.
Western blot shows lysates of human kidney (medulla) tissue. PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human SorCS2 Antigen Affinity-purified Antibody (Catalog # AF4238) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for SorCS2 at approximately 120 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry



SorCS2 in Human Brain.
SorCS2 was detected in immersion fixed paraffin-embedded sections of human brain (medulla) using Sheep Anti-Human SorCS2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4238) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to neurons and their processes. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

SorCS2 is a type I transmembrane glycoprotein receptor that belongs to the mammalian Vps10p (vacuolar protein-sorting 10 protein) family (1, 2). Family receptors include sortilin, SorLA, and three SorCS proteins. All SorCS proteins are predominantly expressed in the brain, especially during development, but vary in other locations (1-3). SorCS2 mRNA has also been found in the kidney, lung, testis and heart (1, 2). SorCS2 presumably mediates endocytosis, but its ligands are not well-defined. However, the other SorCS proteins have been shown to bind NGF and PDGF-BB (4-6). Human SorCS2 is synthesized as a 1159 amino acid (aa) prepro form with a 50 aa signal sequence and a potential furin-type proteolytic processing site at aa 119. This would produce a mature SorCS2 protein of 1040 aa with a 959 aa extracellular/lumenal domain (ECD), a 21 aa transmembrane domain and a 60 aa cytoplasmic domain. The ECD contains an imperfect leucine-rich repeat (LRR) and a Vps10p domain (2). Within the ECD, human SorCS2 shares 89%, 88%, 88% and 79% aa identity with mouse, rat, equine and canine SorCS2, respectively. It also shares 46% aa identity with the ECD of both SorCS1 and SorCS3. Unlike other SorCS, shedding of the SorCS2 ECD occurs very slowly and is mainly independent of the metalloproteinase TACE/ADAM17 (4).

References:

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2. Rezgaoui, M. *et al*. (2001) Mech. Dev. **100**:335.
3. Hermey, G. *et al*. (2004) J. Neurochem. **88**:1470.
4. Hermey, G. *et al*. (2006) Biochem. J. **395**:285.
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6. Westergaard, U. B. *et al*. (2005) FEBS Lett. **579**:1172.

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