

Sialin Antibodies

Cat # SIAL11-P	Human sialin control/blocking peptide #1	SIZE: 100 ug
Cat # SIAL11-S	Rabbit Anti-Human sialin antiserum # 1	SIZE: 100 ul
Cat # SIAL11-A	Rabbit Anti-Human sialin IgG #1, aff pure	SIZE: 100 ug

Sialic acid storage disease (SASD) are autosomal recessive neurodegenerative disorders that may present as a severe infantile form (ISSD) or a slowly progressive adult form (Salla disease) prevalent in Finland. The patients excrete large amounts of free sialic acid in urine. A H⁺/anionic sugar symporter mechanism for sialic acid and gluconic acid is impaired in lysosomal membranes from Salla and ISSD. A new gene, termed **Sialin** (SLC17A5; human 495 aa, chromosome 6q14-q15) belonging to the family of anion/cation symporters (ACS) has been found to be mutated in sialic acid storage disease. Sialin is predicted to contain up to 12 TM domains with N and C-termini located in the cytoplasm. Sialin has 37%, 34%, and 16% sequence identity with BNPI/VGLUT1, NPT1 (Napi-I), and E. coli hexuronate (EchHex) transporter, respectively. Sialin is found to be expressed in many human tissues.

Source of Antigen and Antibodies

Antigen	A 17 aa synthetic peptide (designated SIAL11-P; control peptide) was synthesized, conjugated to KLH Epitope location Witin 1 st putative extracellular domain (between 1-2 TM) of human sialin
Ab Host/type	Rabbit, polyclonal Unpurified antiserum (cat # SIAL11-S), and Aff pure IgG1 (cat # SIAL11-A) purified over the antigen column
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

Affinity pure IgG

100 ug/100ul solution lyophilized powder
Supplied in **Buffer:** PBS+0.1% BSA
Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder
Supplied in Buffer: PBS pH 7.5,
Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at 20°C and powder at 4°C or -20°C..

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder

Recommended Usage

Western Blotting 1:1K-5K for antiserum and 1-10 ug/ml for affinity pure antibody using Chemiluminescence technique. Sialin is ~55-60 kDa protein.

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:10-50K for neat serum and 0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: not tested.

Specificity & Cross-reactivity

The SIAL11-P peptide has no significant sequence with mammalian BNPI/VGLUT1 or other NaPi-related (Type-1 to Type-III) transporters. Sialin from other species has not yet been cloned. Antibody crossreactivity in various species is not established. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at: the web site).

General References:

(1) Verheijen FW et al (1999) Nature Genet. 23, 462-465;

**This product is for In vitro research use only.*

Related material available from ADI

Anti-GLAST, EAAC1, GLT1, EAAT4, EAAT5, GTRAP41, EAT45, VGLUT1/BNPI, VGLUT-2/DNPI & GABA Transporters (GAT1-3)

Ant-NaPi-I, NaPi-II, NaPi-III, GTRAP41, GTRAP48

SIAL11-S-A-P

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