

### Sialin Antibodies

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

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