



Product Specification Sheet

**Solute carrier family 7 member 9 (SLC7A9) protein Antibodies**

<input type="checkbox"/> Cat. # AB-23009-A	Rabbit Anti-Human SLC7A9 IgG (aff pure)	<b>SIZE:</b> 100 ug
<input type="checkbox"/> Cat. # AB-23009-P	Human SLC7A9 Control/blocking peptide	<b>SIZE:</b> 100 ug

Solute carrier proteins are membrane transport proteins that contain transmembrane alpha helices. They transport organic, inorganic molecules, ammonia gas. SLC7A9 gene provides instructions for producing one part (subunit) of a protein made primarily in the kidneys. This subunit joins with another protein subunit, produced from the SLC3A1 gene, to form a transporter protein complex. During the process of urine formation in the kidneys, this protein complex absorbs particular protein building blocks (cysteine, ornithine, arginine, and lysine) back into the blood. Cystinuria is caused by mutations in the SLC7A9 gene.

**Protein function** Involved in the high-affinity, sodium-independent transport of cystine and neutral and dibasic amino acids (system b(0,+)-like activity). Thought to be responsible for the high-affinity reabsorption of cystine in the kidney tubule.

**Protein name** b(0,+)-type amino acid transporter 1, Glycoprotein-associated amino acid transporter b0,+AT1, Solute carrier family 7 member 9

**Gene name** SLC7A9

**Subcellular location** Apical cell membrane; Multi-pass membrane protein

**Similarity** Belongs to the amino acid-polyamine-organocation (APC) superfamily.

**Source of Antigen and Antibodies**

<b>Antigen</b>	16-aa peptides of Human Solute carrier family 7 member 9 (SLC7A9) (protein accession # <b>P82251</b> ). ( <b>Designated AB-23009-P or control peptides</b> ) conjugated to KLH; Epitope location; C-term, cytoplasmic
<b>Ab Host/type</b>	Rabbit, polyclonal Aff pure IgG ( <b>cat # AB-23009-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**

**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 neat serum and 1-10 ug/ml for affinity pure using Chemiluminescence technique).

**ELISA** (1:10K-1:100K; using 50-100 ng of control peptide/well).

**Histochemistry & Immunofluorescence:** not tested. We recommend the use of affinity pure antibody at 2-20 ug/ml.

**Specificity & Cross-reactivity**

AB-23009-P peptide sequences are found to be 100% in Tilapia fish, 75% conserved in human, 72% in mouse and 67% in rat. Antibody reactivity has not been established between species. The AB-23009-P control peptides, 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.

**General References**

Feliubadalo L., (1999). Nat. Genet. 23:52-57. Pfeiffer R., (1999). Mol. Biol. Cell 10:4135-4147. Shigeta Y., (2006). Kidney Int. 69:1198-1206. Harnevik, L., (2003). Genet. Test. 7: 13-20.

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

**Related materials available from ADI**

**Antibodies:**

ReadyBlot **Kidney Protein Explorer**-Study distribution of protein in various regions of the Human/rat kidney using the pre-made protein blots; Western blot recycling kit-Use the same blot for WNK1-4.

AB-23009-A-P 151007VP