

DESCRIPTION

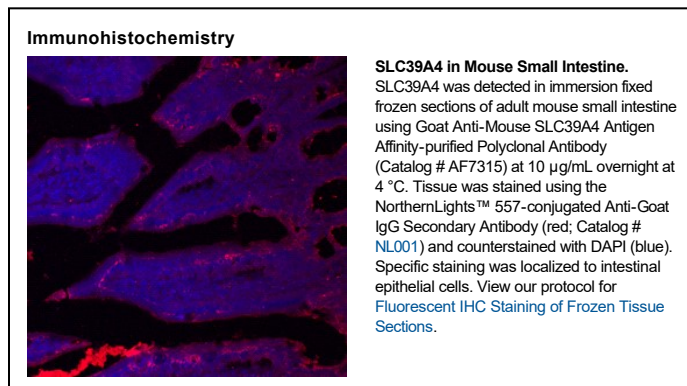
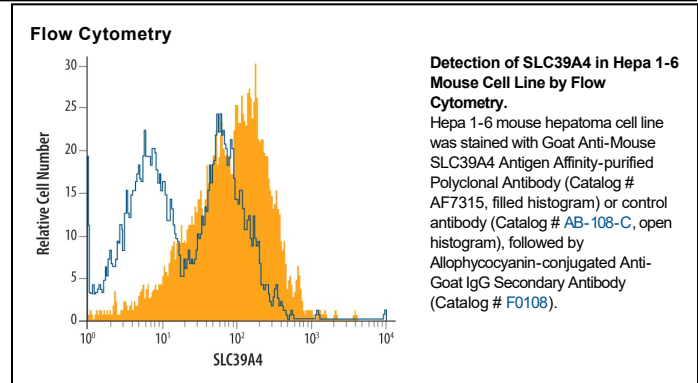
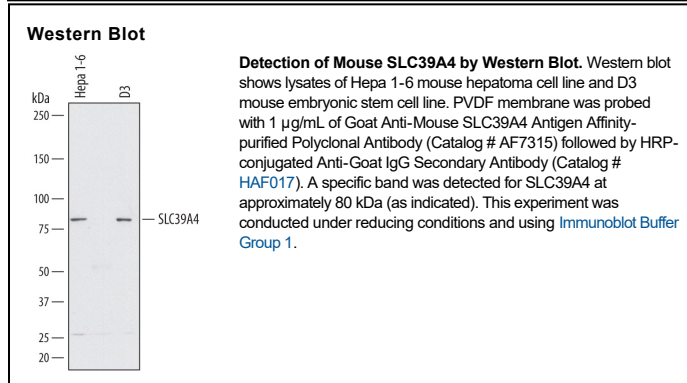
Species Reactivity	Mouse
Specificity	Detects mouse SLC39A4 in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse SLC39A4 Met1-Tyr337 Accession # Q781Q7
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunohistochemistry	5-15 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
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. <ul style="list-style-type: none"> • 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.

BACKGROUND

SLC39A4 (Solute carrier family 39 member 4; also Zip-4) is a 75-90 kDa member of the ZIP transporter family of proteins. It is expressed by select cell types, including pancreatic β -cells plus epithelium of the choroid plexus and intestine. SLC39A4 is part of a zinc-sensitive cell cycling system. When extracellular zinc levels are high, SLC39A4 is generally found internally associated with endosomes, and is unavailable at the cell membrane to transport zinc into the cell. Under low zinc conditions, SLC39A4 generally appears in the plasma membrane to ensure adequate zinc uptake in the face of limited zinc availability. Mouse SLC39A4 is a 660 amino acid (aa) six transmembrane (TM) glycoprotein. It contains a long N-terminal extracellular region (aa 1-337) followed by six TM segments (aa 338-651) and a short C-terminal nine aa extracellular tail (aa 652-660). There is one splice variant that shows a 16 aa substitution for aa 1-63. SLC39A4 undergoes cell-specific proteolytic processing in response to low zinc concentrations. Cleavage occurs in the N-terminal extracellular region to generate a soluble 35 kDa polypeptide and a 37 kDa six TM integral membrane protein. This does not appear to be an inactivating mechanism. Over aa 1-337, mouse SLC39A4 shares 84% and 59% aa sequence identity with rat and human SLC39A4, respectively.