

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 # Q78IQ7
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

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.

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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.

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