

Human/Mouse/Rat Nicalin Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF7686

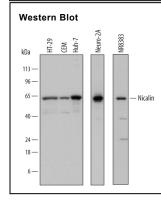
DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects human, mouse, and rat Nicalin in Western blots.		
Source	Polyclonal Sheep IgG		
Purification	Antigen Affinity-purified		
Immunogen	S. frugiperda insect ovarian cell line Sf 21-derived recombinant human Nicalin Met1-Ala522, predicted Accession # Q969V3		
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	0.5 μg/mL	See Below

DATA



Detection of Human, Mouse, and Rat Nicalin by Western Blot. Western blot shows lysates of HT-29 human colon adenocarcinoma cell line, CEM human T-lymphoblastoid cell line, Huh-7 human hepatoma cell line, Neuro-2A mouse neuroblastoma cell line, and NR8383 rat alveolar macrophage cell line. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human/ Mouse/Rat Nicalin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7686) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Nicalin at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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.

- 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

Nicalin (NICAstrin-Like proteIN) is a 60-62 kDa member of the nicastrin family of proteins. It is an ER-embedded transmembrane protein that is found in skeletal and cardiac muscle, hepatocytes and neurons. Nicalin interacts with 22 kDa TMEM147 and 130 kDa NOMO1 to form a 200-220 kDa complex that antagonizes Nodal signaling. Mature human nicalin is a 521 amino acid (aa) type I transmembrane glycoprotein. It contains a 480 aa luminal/extracellular region (aa 43-522) plus a 20 aa cytoplasmic domain (aa 544-563). The luminal region possesses one likely inactive M28 Zn-peptidase-like domain (aa 130-429). Four potential isoform variants are reported. One shows an alternative start site at Met75, a second contains a seven aa insertion after Gln543, a third contains a 102 aa substitution for aa 162-563, and a fourth shows a deletion of Gln446. Over aa 1-522, human nicalin shares 95% aa sequence identity with mouse nicalin.

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