# Human/Mouse/Rat Nicalin Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7686

## DESCRIPTION

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|---|---|
| **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<br>Met1-Ala522, predicted<br>Accession # Q969V3 |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

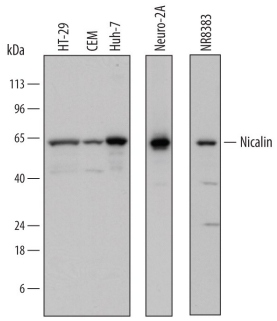
## APPLICATIONS

**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

**Western Blot**




**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

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|---|---|
| **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.<br>*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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 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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