

## DESCRIPTION

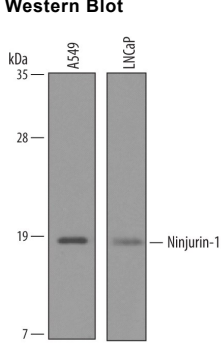
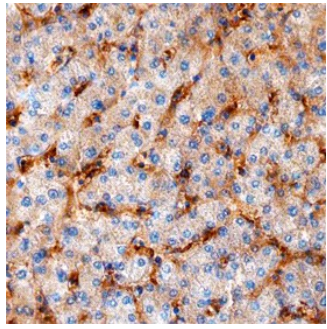
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Ninjurin-1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human Ninjurin-2 is observed.
<b>Source</b>	Polyclonal Sheep IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Ninjurin-1 Asp2-Val81 Accession # Q92982
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *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
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

## DATA

Western Blot	Immunohistochemistry
 <p><b>Detection of Human Ninjurin-1 by Western Blot.</b> Western blot shows lysates of A549 human lung carcinoma cell line and LNCaP human prostate cancer cell line. PVDF membrane was probed with 1 µg/mL of Human Ninjurin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5105) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Ninjurin-1 at approximately 19 kDa (as indicated). This experiment was conducted under reducing conditions and using <a href="#">Immunoblot Buffer Group 8</a>.</p>	 <p><b>Ninjurin-1 in Human Liver.</b> Ninjurin-1 was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human Ninjurin-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5105) at 3 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Sheep HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells in bile canaliculi. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Ninjurin-1 (nerve injury-induced protein 1) is a 20-22 kDa member of the Ninjurin family of transmembrane (TM) proteins. It is expressed by Schwann cells, neurons and hepatocytes and participates in intercellular homophilic binding during nerve regeneration. Human Ninjurin-1 is 152 amino acids in length. It has an unusual membrane orientation. There is an 80 amino acid (aa) N-terminal extracellular domain (ECD) (aa 1-80), followed by a TM segment, a cytoplasmic region, a second TM segment and a C-terminal ECD (aa 142-152). Homophilic binding is divalent-cation dependent and occurs between Pro26 and Asn37. Over aa 1-80, human Ninjurin-1 shares 84% aa sequence identity with mouse Ninjurin-1. Human Ninjurin-1 shares only 50% aa sequence identity with human Ninjurin-2.