

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human, mouse, and rat Ninjurin-2 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human Ninjurin-1 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-2 Met1-Thr65 Accession # Q9NZG7
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

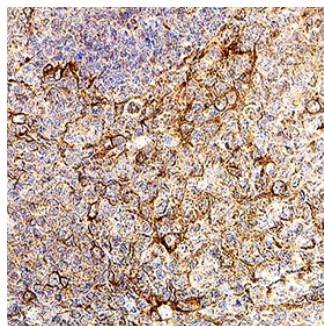
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	3-15 µg/mL	Immersion fixed paraffin-embedded sections of Human Tonsil

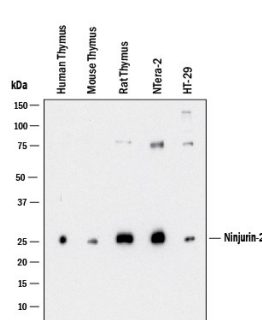
## DATA

### Immunohistochemistry



**Detection of Ninjurin-2 in Human Tonsil** Ninjurin-2 was detected in immersion fixed paraffin-embedded sections of Human Tonsil using Sheep Anti-Human/Mouse/Rat Ninjurin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5056) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC006). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using VisUCyte Antigen Retrieval Reagent-Basic (Catalog # VCTS021). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cell surface on lymphocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

### Western Blot



**Detection of Human/Mouse/Rat Ninjurin-2 by Western Blot.** Western blot shows lysates of human thymus, mouse thymus, rat thymus, Ntera-2 human testicular embryonic carcinoma cells and HT-29 human colon adenocarcinoma cells. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human/Mouse/Rat Ninjurin-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5056) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Ninjurin-2 at approximately ~26kDa kDa (as indicated). This experiment was conducted under reducing conditions and using Western Blot Buffer Group 1.

## 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-2 (nerve injury-induced protein 2) is a 20-22 kDa member of the Ninjurin family of transmembrane (TM) proteins. It is expressed by multiple cell types, including Schwann cells, myenteric plexus and sensory neurons, and lymphocytes and participates in intercellular homophilic binding. Human Ninjurin-2 is 142 amino acids (aa) in length. It has an unusual membrane orientation. There is a 65 aa N-terminal extracellular domain (ECD) (aa 1-65) that contains one phosphorylation site at Ser3, followed by a TM segment, a cytoplasmic region, a second TM segment and a C-terminal ECD (aa 128-142). One potential alternate start site exists 46 aa upstream of the standard form start site. Over aa 1-65, human Ninjurin-2 is 71% aa identical to mouse Ninjurin-2.