

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ninjurin-1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human Ninjurin-2 is observed.
Source	Monoclonal Mouse IgG ₁ Clone # 758926
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Ninjurin-1 Asp2-Val81 Accession # Q92982
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
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunohistochemistry	8-25 µg/mL	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

<p>Flow Cytometry</p>	<p>Detection of Ninjurin-1 in HepG2 Human Cell Line by Flow Cytometry. HepG2 human hepatocellular carcinoma cell line was stained with Mouse Anti-Human Ninjurin-1 Monoclonal Antibody (Catalog # MAB51051, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B).</p>	<p>Immunohistochemistry</p>	<p>Ninjurin-1 in Human Liver. Ninjurin-1 was detected in immersion fixed paraffin-embedded sections of human liver using Mouse Anti-Human Ninjurin-1 Monoclonal Antibody (Catalog # MAB51051) at 15 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-Mouse HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS002) and counterstained with hematoxylin (blue). Specific staining was localized to Kupfer cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 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. <ul style="list-style-type: none"> ● 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

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.