Human/Mouse/Rat NIPP1 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7240

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat NIPP1 in Western blots and detects recombinant human NIPP1 in direct ELISAs.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant human NIPP1 Ala2-Ile351 Accession # Q12972
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 as a 0.2 µm filtered solution in PBS.

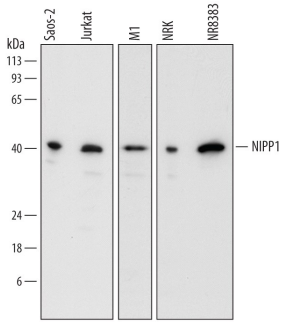
APPLICATIONS

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 NIPP1 by Western Blot. Western blot shows lysates of Saos-2 human osteosarcoma cell line, Jurkat human acute T cell leukemia cell line, M1 mouse myeloid leukemia cell line, NRK rat normal kidney cell line, and NR8383 rat alveolar macrophage cell line. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human/Mouse/Rat NIPP1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7240) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for NIPP1 at approximately 40 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

NIPP1 (Nuclear Inhibitory polypeptide of Protein Phosphatase 1; also ARD-1 and PPP1R8) is a 41 kDa intracellular protein that belongs to no known molecular family. Although it is ubiquitously expressed, it does undergo alternative splicing, and distinct isoforms are associated with distinct tissues. In the nucleus, NIPP1 complexes with PP1c, targeting it to either RNA or chromatin. This is accompanied by the additional recruitment of other molecules such as Sap155 and PRC2. When nonphosphorylated, NIPP1 blocks PP1c activity; when phosphorylated, NIPP1 allows for PP1c activity, and this impacts the processes of both pre-mRNA splicing and gene silencing. Human NIPP1 is 351 amino acids (aa) in length. It contains an N-terminal FHA domain (aa 49-101), an NLS (aa 185-209), a PP1 binding site (aa 191-210), another NLS (aa 210-240) and an RNA binding site (aa 330-351). There are two potential splice variants. Both possess alternative start sites, one at Met143 (called NIPP1β), and another at Met225 (called ARD-1 or NIPP1γ). Full-length human NIPP1 shares 98% aa sequence identity with mouse NIPP1.

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