

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	<i>E. coli</i> -derived recombinant human NIPP1 Ala2-Ile351 Accession # Q12972
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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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