

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Aminopeptidase P1/XPNPEP1 in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 1% cross-reactivity with recombinant human (rh) XPNPEP2 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human Aminopeptidase P1/XPNPEP1 Met1-His623 Accession # NP_065116
<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 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
<b>Western Blot</b>	0.1 µg/mL	Recombinant Human Aminopeptidase P1/XPNPEP1 (Catalog # 2970-ZN)
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Aminopeptidase P1/XPNPEP1 (Catalog # 2970-ZN), see our available <a href="#">Western blot detection antibodies</a>

## 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

The human XPNPEP1 gene encodes aminopeptidase P1 (APP1), which is also known as X-prolyl aminopeptidase with gene aliases of SAMP, XPNPEP, XPNPEPL, and XPNPEPL1 (1-3). It is a member of the M24 family of metalloproteases, which also contains methionine aminopeptidases, X-Pro dipeptidase, aminopeptidase P2, aminopeptidase P homolog, proliferation-associated protein 1, and suppressor of Ty homolog or chromatin-specific transcription elongation factor large subunit (4). It is a soluble enzyme, in contrast to the GPI-anchored APP2 encoded by XPNPEP2 (5). Human APP1 is widely expressed (3). The purified rhAPP1 is an active aminopeptidase, removing a N-terminal amino acid from a peptide that contains a Pro residue at the second position. The amino acid sequence of human APP1 is 99%, 97%, 95%, 74% and 73% identical to that of canine, bovine, mouse/rat, *Xenopus* and zebrafish, respectively.

### References:

1. Cottrell, G.S. *et al.* (2000) *Biochemistry* **39**:15121.
2. Sprinkle, T.J. *et al.* (2000) *Arch. Biochem. Biophys.* **378**:51.
3. Vanhoof, G. *et al.* (1997) *Cytogenet. Cell Genet.* **78**:275.
4. Turner, A.J. and G.S. Cottrell (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, A.J. *et al.*) pp. 931, Elsevier Academic Press, San Diego.
5. Simmons, W.H. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, A.J. *et al.*) pp. 934, Elsevier Academic Press, San Diego.