

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Aminopeptidase PILS/ARTS1 in direct ELISAs and Western blots. In direct ELISAs, approximately 45% cross-reactivity with recombinant mouse ARTS1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Aminopeptidase PILS/ARTS1 Ala37-Met941 Accession # EAW96077
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.

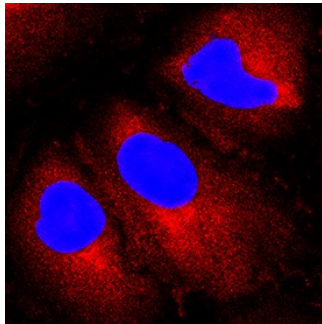
APPLICATIONS

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	0.1 µg/mL	Recombinant Human Aminopeptidase PILS/ARTS1 (Catalog # 2334-ZN)
Immunocytochemistry	1-15 µg/mL	See Below
Immunohistochemistry	1-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human Aminopeptidase PILS/ARTS1 (Catalog # 2334-ZN), see our available Western blot detection antibodies

DATA

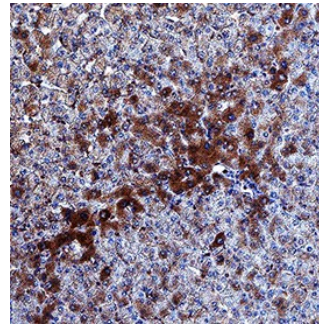
Immunocytochemistry



Aminopeptidase PILS/ARTS1 in A549 Human Cell Line.

Aminopeptidase PILS/ARTS1 was detected in immersion fixed A549 human lung carcinoma cell line using Goat Anti-Human Aminopeptidase PILS/ARTS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2334) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



Aminopeptidase PILS/ARTS1 in Human Liver.

Aminopeptidase PILS/ARTS1 was detected in immersion fixed paraffin-embedded sections of human liver using Goat Anti-Human Aminopeptidase PILS/ARTS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2334) at 1 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to hepatocyte cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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

The name of Aminopeptidase PILS (Puromycin-Insensitive Leucyl-Specific) describes the two basic properties of this zinc metalloprotease *in vitro* (1). Also known as ALAP (Adipocyte-derived Leucyl Amino Peptidase), type 1 tumor necrosis factor receptor (TNFR) shedding aminopeptidase regulator and ER aminopeptidase ERAP1 or ERAAP, it is encoded by the ARTS1 gene (2-4). Aminopeptidase PILS has been identified to regulate antigen presentation, promote TNFR1 ectodomain shedding and associate with hypertension (2-5).

References:

1. Schomburg, L. (2004) in *Handbook of Proteolytic Enzymes* (ed. Barrett, et al.) pp. 311, Academic Press, San Diego.
2. Cui, X. et al. (2002) J. Clin. Invest. **110**:515.
3. York, I.A. et al. (2002) Nat. Immunol. **3**:1177.
4. Serwold, T. et al. (2002) Nature **419**:480.
5. Yamamoto, N. et al. (2002) Hum. Mutat. **19**:251.