

DESCRIPTION

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|---------------------------|---|
| 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 either lyophilized or as a 0.2 µm filtered solution in PBS. |

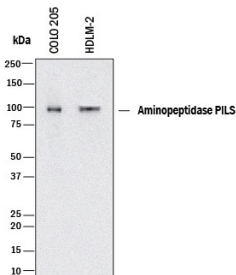
APPLICATIONS

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 |
|-----------------------------|---------------------------|--|
| Western Blot | 1 µg/mL | See Below |
| 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 |

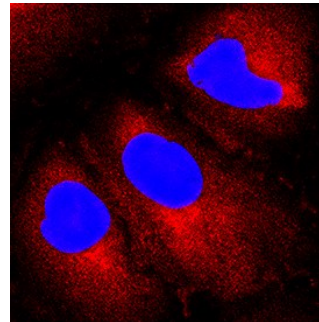
DATA

Western Blot



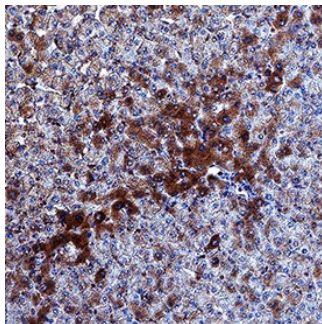
Detection of Human Aminopeptidase PILS/ARTS1 by Western Blot. Western blot shows lysates of COLO 205 human colorectal adenocarcinoma cell line and HDLM-2 human Hodgkin's lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Aminopeptidase PILS/ARTS1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2334) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Aminopeptidase PILS/ARTS1 at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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

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|--------------------------------|--|
| 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 Aminopetidase PILS (Puromycin-Insensitive Leucyl-Specific) describes the two basic properties of this zinc metalloprotease *in vitro* (1). Also known as ALAP (Adipocyte-derived Leucin AminoPeptidase), 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.