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Anti-ERAP1 Antibody

Catalog # AP51192

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q9NZ08
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	107235

Additional Information

Gene ID	51752
Other Names	APPILS; ARTS1; KIAA0525; Endoplasmic reticulum aminopeptidase 1; ARTS-1; Adipocyte-derived leucine aminopeptidase; A-LAP; Aminopeptidase PILS; Puromycin-insensitive leucyl-specific aminopeptidase; PILS-AP; Type 1 tumor necrosis factor receptor shedding aminopeptidase regulator
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ERAP1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000 IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	ERAP1
Synonyms	APPILS, ARTS1, KIAA0525
Function	Aminopeptidase that plays a central role in peptide trimming, a step required for the generation of most HLA class I-binding peptides. Peptide trimming is essential to customize longer precursor peptides to fit them to the correct length required for presentation on MHC class I molecules. Strongly prefers substrates 9-16 residues long (PubMed:16286653, PubMed:26224046). Rapidly degrades 13-mer to a 9-mer and then stops (PubMed:16286653). Preferentially hydrolyzes the residue Leu and peptides with a hydrophobic C-terminus, while it has weak activity toward peptides with charged C-terminus. May play a role in the inactivation of peptide hormones. May be involved in the regulation of blood pressure through the inactivation of angiotensin II and/or the generation of bradykinin in the

kidney.

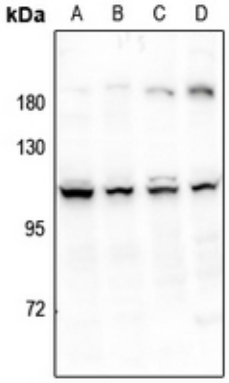
Cellular Location Endoplasmic reticulum membrane; Single-pass type II membrane protein

Tissue Location Ubiquitous.

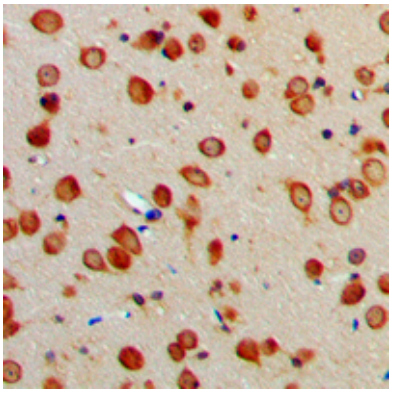
References

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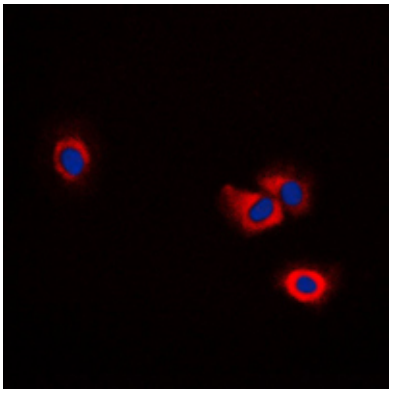
Images



Western blot analysis of ERAP1 expression in HepG2 (A), HEK293T (B), PC12 (C), AML12 (D) whole cell lysates. (Predicted band size: 107 kD; Observed band size: 107 kD)



Immunohistochemical analysis of ERAP1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ERAP1 staining in NIH3T3 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

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