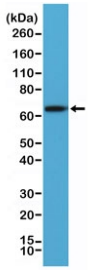
PLAP Antibody RM317 / ALPP N-Terminal Epitope Antibody [clone RM317] (R20336)

Catalog No.	Formulation	Size
R20336-0.1ML	Antibody in PBS with 50% glycerol, 1% BSA and 0.09% sodium azide	100 ul

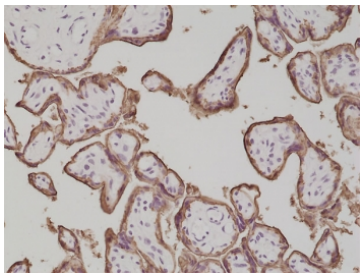
Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	RM317
Purity	Protein A purified from animal origin-free supernatant
UniProt	P05187
Localization	Cytoplasmic, cell membrane
Applications	Immunohistochemistry (FFPE): 1:500-1:1000 Western Blot: 1:1000-1:2000
Limitations	This PLAP Antibody RM317 / ALPP N-Terminal Epitope Antibody is available for research use only.



PLAP Antibody RM317 A431 WB. Western blot analysis of human A431 cell lysate using PLAP Antibody detects a strong band at approximately 65-70 kDa, consistent with placental alkaline phosphatase / ALPP. Although the predicted molecular weight of PLAP is approximately 58 kDa, the protein is routinely visualized at higher apparent molecular weights due to extensive glycosylation and post-translational processing characteristic of this membrane-associated alkaline phosphatase family member. This N-terminal epitope antibody supports detection of processed ALPP species in epithelial-derived cellular populations.



PLAP Antibody RM317 Placenta IHC. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human placenta tissue stained with PLAP Antibody demonstrates strong circumferential membranous HRP-DAB brown staining outlining trophoblast-lined chorionic villi and syncytiotrophoblast-associated epithelial surfaces. The staining pattern is consistent with expression of placental alkaline phosphatase / ALPP within placental trophoblastic compartments and highlights membrane-associated localization of this N-terminal epitope antibody. Antibody dilution: 1:500. HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.

Description

Placental alkaline phosphatase (ALPP), commonly known as PLAP, is a glycosylphosphatidylinositol-anchored membrane glycoprotein belonging to the alkaline phosphatase enzyme family. The protein is strongly associated with placental trophoblasts, epithelial differentiation pathways, and germ cell tumor biology, where it functions in extracellular phosphomonoester hydrolysis and membrane-associated phosphate metabolism. PLAP Antibody is useful for studies involving placental epithelial biology, trophoblast-associated differentiation, and tumor lineage characterization in epithelial and germ cell-derived tissues.

PLAP antibody, also referred to as Placental alkaline phosphatase antibody and ALPP antibody in the literature, recognizes a tissue-restricted alkaline phosphatase isozyme encoded on chromosome 2q37.1. ALPP localizes predominantly to the plasma membrane and extracellular cellular surface through a glycosylphosphatidylinositol anchor. Because placental alkaline phosphatase undergoes substantial glycosylation and extracellular membrane processing, epitope localization may influence antibody accessibility, staining characteristics, and recognition of processed protein forms in tissue and cell-based assays.

PLAP Antibody RM317 / ALPP N-Terminal Epitope Antibody (clone RM317) is useful for studies involving placental membrane biology, trophoblast differentiation pathways, epithelial membrane organization, and germ cell tumor-associated signaling mechanisms. This recombinant rabbit monoclonal PLAP Antibody is designed to recognize an N-terminal epitope of placental alkaline phosphatase / ALPP, providing an alternative detection profile relative to antibodies directed against other extracellular regions of the protein. N-terminal epitope targeting may support recognition of membrane-associated and processed PLAP species in epithelial and trophoblast-associated cellular populations.

Placental alkaline phosphatase expression is strongly associated with syncytiotrophoblasts and trophoblast-derived epithelial compartments, where the protein contributes to extracellular phosphate metabolism and membrane-associated phosphatase activity. In pathology-focused research, PLAP is widely recognized as a marker associated with seminoma and germ cell tumor differentiation. The restricted normal tissue distribution of ALPP relative to other alkaline phosphatase family members contributes to its value in studies examining tumor lineage identity and trophoblastic differentiation programs.

ALPP is heavily glycosylated and commonly appears at higher apparent molecular weights than predicted from amino acid sequence alone. Membrane localization, extracellular domain structure, and post-translational processing may influence epitope accessibility in western blot, immunofluorescence, flow cytometry, and tissue-based applications. N-terminal epitope-directed antibodies may therefore provide distinct staining characteristics depending on fixation conditions, protein processing state, and membrane orientation within target cells and tissues.

PLAP Antibody supports research involving placental biology, trophoblast differentiation pathways, germ cell tumor markers, epithelial membrane proteins, extracellular phosphate metabolism, and alkaline phosphatase-associated signaling mechanisms. The antibody may be incorporated into investigations examining placental development, reproductive tissue pathology, epithelial differentiation state, and membrane-associated protein regulation in normal and diseased tissues.

For a clone-defined placental marker antibody with extensive placenta-positive and normal tissue-negative

immunohistochemistry validation data, see our ALPP Antibody / Placental Marker Antibody page featuring clone rALP/870.

Application Notes

The stated application concentrations are suggested starting points. Titration of the PLAP Antibody RM317 / ALPP N-Terminal Epitope Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A peptide corresponding to the N-terminus of human placental alkaline phosphatase was used as the immunogen for the recombinant PLAP antibody.

Storage

Store the PLAP antibody at -20oC.

Alternate Names

PLAP antibody, ALPP antibody, Placental alkaline phosphatase antibody, N-terminal PLAP antibody, ALPP N-terminus antibody

Copyright © NSJ Bioreagents. All rights reserved.