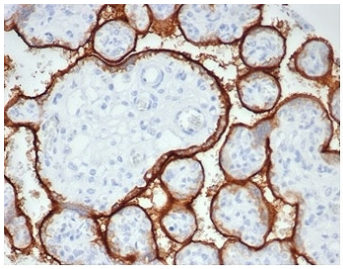
ALPP Antibody / Placental Marker Antibody [clone rALP/870] (V9465)

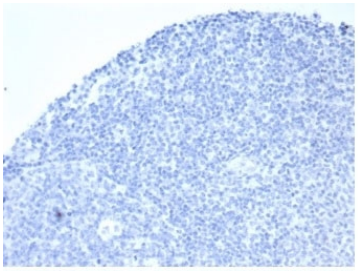
Catalog No.	Formulation	Size
V9465-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9465-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9465SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

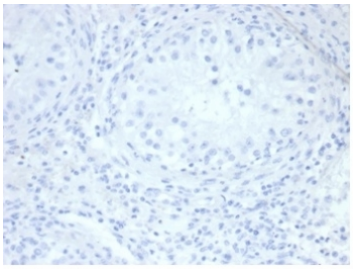
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	rALP/870
Purity	Protein A/G affinity
UniProt	P05187
Localization	Cytoplasmic, Cell surface
Applications	Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This ALPP Antibody / Placental Marker Antibody is available for research use only.



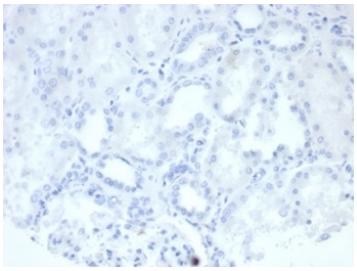
ALPP Antibody Placenta IHC. Immunohistochemistry analysis of FFPE human placenta tissue stained with ALPP Antibody clone rALP/870 demonstrates strong circumferential membranous HRP-DAB brown staining outlining syncytiotrophoblast-lined placental villi. The staining pattern is consistent with expression of placental alkaline phosphatase / ALPP in trophoblast-associated epithelial compartments and highlights the characteristic membrane localization of this placental differentiation marker. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



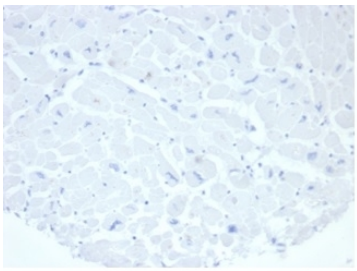
Negative Control ALPP Antibody Tonsil IHC. Immunohistochemistry analysis of FFPE human tonsil tissue stained with ALPP Antibody clone rALP/870 demonstrates minimal background HRP-DAB staining within lymphoid cellular compartments, supporting the restricted physiologic expression profile of placental alkaline phosphatase / ALPP outside trophoblast-associated tissues. This placental marker antibody shows low non-specific reactivity in normal lymphoid tissue. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



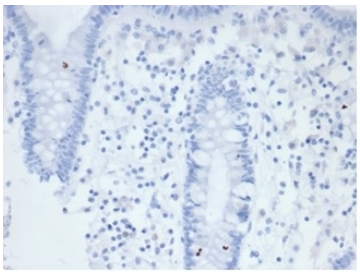
Negative Control ALPP Antibody Testis IHC. Immunohistochemistry analysis of FFPE human testis tissue stained with ALPP Antibody (clone rALP/870) demonstrates minimal detectable HRP-DAB staining within seminiferous tubules and surrounding stromal compartments, supporting the restricted physiologic expression profile of placental alkaline phosphatase / ALPP outside placental and trophoblast-associated tissues. This placental marker antibody shows low background reactivity in normal testicular tissue. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



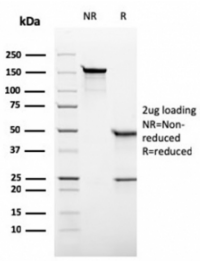
Negative Control ALPP Antibody Kidney IHC. Immunohistochemistry analysis of FFPE human kidney tissue stained with ALPP Antibody clone rALP/870 demonstrates minimal detectable HRP-DAB staining within renal tubular epithelial and stromal compartments, supporting the restricted placental-associated expression profile of placental alkaline phosphatase / ALPP in non-trophoblastic tissues. This placental marker antibody shows low background reactivity in normal renal tissue. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



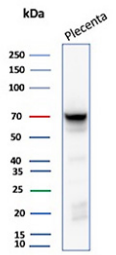
Negative Control ALPP Antibody Heart IHC. Immunohistochemistry analysis of FFPE human heart tissue stained with ALPP Antibody clone rALP/870 demonstrates minimal detectable HRP-DAB staining within cardiac myocytes and surrounding stromal tissue, supporting the restricted physiologic expression profile of placental alkaline phosphatase / ALPP outside placental and trophoblast-associated compartments. This placental marker antibody shows low non-specific background reactivity in normal cardiac tissue. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Negative Control ALPP Antibody Colon IHC. Immunohistochemistry analysis of FFPE human colon tissue stained with ALPP Antibody clone rALP/870 demonstrates minimal detectable HRP-DAB staining within colonic epithelial and stromal compartments, supporting the restricted placental-associated expression profile of placental alkaline phosphatase / ALPP in non-trophoblastic tissues. This placental marker antibody shows low background reactivity in normal gastrointestinal epithelium. Antibody concentration: 2ug/ml in PBS for 30 min at RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant ALPP antibody (clone rALP/870) as confirmation of integrity and purity.



ALPP Antibody Placenta WB. Western blot analysis of human placenta tissue lysate using ALPP Antibody / Placental Marker Antibody (clone rALP/870) detects a strong band at approximately 68-70 kDa, consistent with the expected apparent molecular weight range of placental alkaline phosphatase / ALPP. Although the predicted molecular weight of ALPP is lower, the protein is commonly observed at higher apparent molecular weights due to extensive glycosylation and post-translational modification characteristic of this membrane-associated alkaline phosphatase family member.

Description

Placental alkaline phosphatase (ALPP) is a glycosylphosphatidylinositol-anchored membrane enzyme belonging to the alkaline phosphatase family and is predominantly expressed in placental trophoblasts and select epithelial-derived tumor populations. ALPP functions in extracellular phosphate metabolism and phosphomonoester hydrolysis while also serving as a well-established placental and trophoblastic differentiation marker. ALPP Antibody is valuable for studies involving placental biology, trophoblast-associated signaling pathways, epithelial tumor characterization, and alkaline phosphatase family expression patterns.

ALPP antibody, also referred to as Placental alkaline phosphatase antibody and PLAP antibody in the literature, recognizes a tissue-restricted alkaline phosphatase isozyme encoded on chromosome 2q37.1. Placental alkaline phosphatase is most strongly associated with syncytiotrophoblast and trophoblast-derived cellular populations, where the protein localizes primarily to the plasma membrane and apical cell surface. The restricted physiologic distribution of ALPP has contributed to its longstanding use as a placental marker and germ cell tumor-associated biomarker in pathology and cancer research applications.

This ALPP Antibody is uniquely positioned for studies investigating placental differentiation and trophoblast-associated epithelial biology. Clone rALP/870 demonstrates strong immunohistochemical staining in human placenta tissue together with supportive western blot validation data, while multiple non-placental tissues including tonsil, testis, kidney, heart, and colon display minimal background staining. This expression profile supports the biologic specificity of placental alkaline phosphatase and reinforces the utility of ALPP as a placental marker antibody in tissue-based research applications.

Placental alkaline phosphatase participates in extracellular dephosphorylation reactions and has been associated with nutrient transport, trophoblast differentiation, and placental membrane biology. Although physiologic ALPP expression is most prominent in placenta, aberrant or ectopic expression has also been described in subsets of epithelial malignancies and germ cell tumors. Because of this restricted tissue distribution pattern, ALPP has become a widely recognized marker in studies examining trophoblastic differentiation, reproductive tissue biology, and tumor-associated lineage characterization.

ALPP expression is typically localized to placental syncytiotrophoblast membranes and may appear as membranous or apically accentuated staining in tissue sections. In contrast, many non-placental tissues demonstrate little to no detectable expression, providing a useful differential expression profile for pathology-focused investigations. The restricted normal tissue distribution observed with placental alkaline phosphatase contributes to its utility in studies involving placental development, epithelial differentiation, and germ cell-associated tumor biology.

ALPP Antibody supports research involving placental biology, trophoblast-associated signaling pathways, epithelial differentiation, extracellular phosphate metabolism, and germ cell tumor marker studies. The antibody may be incorporated into investigations examining placental development, reproductive tissue pathology, alkaline phosphatase family biology, and tumor-associated lineage differentiation in normal and diseased tissues.

For additional alkaline phosphatase family antibodies targeting tissue nonspecific alkaline phosphatase and phosphate metabolism pathways, explore our ALPL antibody pages and related Metabolism Antibodies resources.

Application Notes

Optimal dilution of the ALPP Antibody / Placental Marker Antibody should be determined by the researcher.

Immunogen

Recombinant full-length human ALPP protein was used as the immunogen for the recombinant ALPP antibody recombinant mouse mAb rALP/870.

Storage

Aliquot the ALPP antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PLAP antibody, Placental alkaline phosphatase antibody, ALPP antibody, Germ cell tumor marker antibody, Trophoblast marker antibody

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