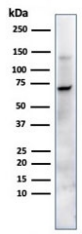
Placental Alkaline Phosphatase Antibody for WB [clone ALP/870] (V2514)

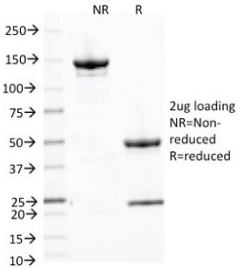
Catalog No.	Formulation	Size
V2514-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2514-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2514SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2514IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

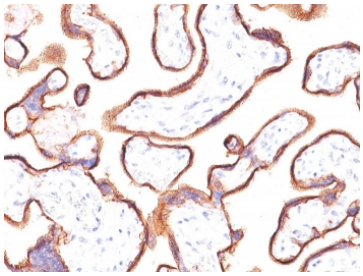
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	ALP/870
Purity	Protein G affinity chromatography
UniProt	P05187
Localization	Cytoplasmic and cell surface
Applications	Immunohistochemistry (FFPE): 0.25-0.5ug/ml; 30 min at RT (1) Prediluted IHC only format: incubate for 30 min at RT (2) Western blot: 1-2ug/ml
Limitations	This Placental Alkaline Phosphatase antibody is available for research use only.



Placental Alkaline Phosphatase Antibody for WB. Western blot testing of human JEG-3 cell lysate with Placental Alkaline Phosphatase antibody. A band is detected at approximately 60-70 kDa, which is slightly higher than the predicted molecular weight of 58 kDa for Placental alkaline phosphatase / ALPP. The upward shift is consistent with glycosylation of this GPI-anchored membrane enzyme, which commonly alters apparent migration on SDS-PAGE.



SDS-PAGE analysis of purified, BSA-free Placental Alkaline Phosphatase antibody (clone ALP/870) as confirmation of integrity and purity.



IHC: Formalin-fixed, paraffin-embedded human placenta stained with Placental Alkaline Phosphatase antibody (clone ALP/870).

Description

Alkaline phosphatase placental is a glycosylphosphatidylinositol-anchored membrane enzyme encoded by the ALPP gene and widely known as placental alkaline phosphatase or PLAP. The Placental Alkaline Phosphatase Antibody for WB is developed to detect this membrane-associated isoenzyme in immunoblot-based protein expression studies. ALPP is located on chromosome 2q37 and belongs to the alkaline phosphatase family of homodimeric metalloenzymes that catalyze the hydrolysis of phosphate monoesters under alkaline conditions.

Because PLAP is a surface-anchored glycoprotein, western blot detection is typically performed on lysates or membrane-enriched fractions where detergent solubilization improves recovery of the GPI-anchored species. In immunoblot workflows, PLAP may appear as one or more immunoreactive bands due to heterogeneity in glycosylation and processing, and signal intensity can vary with sample preparation, reduction conditions, and degree of membrane protein enrichment. These considerations make PLAP a useful target for studies comparing placental or tumor-derived expression profiles and for confirming presence of ALPP in engineered cell systems expressing PLAP.

Expression of ALPP is strongly associated with placental trophoblast biology and is also observed in germ cell tumor models that recapitulate trophoblastic or seminomatous differentiation. In western blot experiments, this restricted expression helps support interpretation when comparing placental samples, germ cell tumor cell lines, and negative control tissues. Immunoblot-based detection of PLAP is also used in studies tracking differentiation state, membrane enzyme abundance, and changes in surface protein composition under experimental perturbations.

ALPP shares structural similarity with other alkaline phosphatase isoenzymes, including tissue-nonspecific and intestinal forms, which can motivate parallel immunoblot validation using isoenzyme-specific reagents when differentiating family members. Use of a Placental Alkaline Phosphatase antibody for WB supports research workflows focused on membrane protein characterization, comparative expression analysis, and verification of PLAP presence in placental and germ cell tumor research models.

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

Optimal dilution of the Placental Alkaline Phosphatase antibody should be determined by the researcher.

1. No special pretreatment is required for the immunohistochemical staining of formalin-fixed tissues.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant full-length human ALPP protein was used as the immunogen for the Placental Alkaline Phosphatase antibody.

Storage

Store the Placental Alkaline Phosphatase antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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