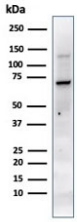
Placental Alkaline Phosphatase Antibody Clone PL8-F6 / ALPP / PLAP [clone PL8-F6] (V2519)

Catalog No.	Formulation	Size
V2519-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2519-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20
V2519SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100

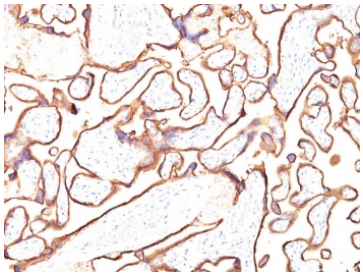
Citations (4)

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	PL8-F6
Purity	Protein G affinity chromatography
UniProt	P05187
Localization	Cytoplasmic and cell surface
Applications	Flow Cytometry : 1-2ug/million cells Immunofluorescence : 1-3ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT Western Blot : 2-4ug/ml
Limitations	This Placental Alkaline Phosphatase antibody is available for research use only.



Western blot testing of human JEG-3 cell lysate with Placental Alkaline Phosphatase antibody (PL8-F6). Predicted molecular weight ~58 kDa but routinely visualized at 60-70 kDa.



Immunohistochemistry of Placental Alkaline Phosphatase Antibody Clone PL8-F6 in human placenta. Formalin-fixed, paraffin-embedded human placental tissue demonstrates strong membranous HRP-DAB brown chromogenic staining in syncytiotrophoblastic cells lining chorionic villi, consistent with surface localization of placental alkaline phosphatase. Underlying stromal cells show minimal staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling prior to antibody incubation.

Description

Placental alkaline phosphatase is a glycosylphosphatidylinositol-anchored membrane enzyme encoded by the ALPP gene and commonly referred to as PLAP. The Placental Alkaline Phosphatase Antibody Clone PL8-F6 is a mouse monoclonal antibody developed to detect this trophoblast-associated isoenzyme in tissue-based research applications. ALPP is located on chromosome 2q37 and belongs to the alkaline phosphatase family of homodimeric metalloenzymes that hydrolyze phosphate monoesters under alkaline conditions.

In normal physiology, placental alkaline phosphatase is strongly expressed on the apical membrane of syncytiotrophoblasts in placental tissue, where it contributes to membrane-associated phosphatase activity at the maternal-fetal interface. Because the enzyme is anchored to the external surface of the plasma membrane, immunohistochemical detection typically demonstrates crisp membranous staining in trophoblastic cells. Expression in most other normal adult tissues is limited, which enhances its utility as a lineage-associated marker in histologic studies.

In oncologic research, PLAP expression has been extensively evaluated in germ cell tumors, particularly seminoma and embryonal carcinoma, as well as in certain trophoblastic neoplasms. Membranous and occasional cytoplasmic staining patterns in tumor epithelial cells are characteristic findings in these malignancies, while most non-germ cell carcinomas exhibit minimal or absent staining. This relatively restricted distribution pattern supports its continued use in studies focused on tumor classification and germ cell differentiation.

Placental alkaline phosphatase shares structural homology with tissue-nonspecific and intestinal alkaline phosphatase isoenzymes but demonstrates a more defined trophoblastic and germ cell-associated expression profile. The mouse monoclonal clone PL8-F6 has been described in numerous peer-reviewed publications investigating germ cell tumors and trophoblastic biology, supporting its role as a widely utilized reagent in tissue-based research settings.

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 PL8-F6 should be determined by the researcher.

Immunogen

Purified human PLAP protein was used as the immunogen for the Placental Alkaline Phosphatase antibody PL8-F6.

Storage

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