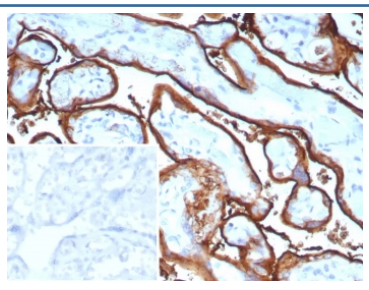
ALPP Antibody Rabbit Monoclonal ALPP/9109R / Placental Alkaline Phosphatase [clone ALPP/9109R] (V5430)

Catalog No.	Formulation	Size
V5430-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5430-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5430SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

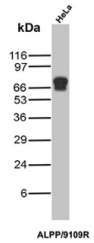
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	ALPP/9109R
Purity	Protein A/G affinity
UniProt	P05187
Localization	Cytoplasm, Cell membrane
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 2-4ug/ml
Limitations	This ALPP antibody is available for research use only.



Immunohistochemistry of ALPP Antibody Rabbit Monoclonal ALPP/9109R in human tonsil. Formalin-fixed, paraffin-embedded human tonsil tissue demonstrates membranous HRP-DAB brown staining in epithelial structures, while surrounding lymphoid areas show minimal staining. The inset shows PBS used in place of the primary antibody as a negative control.



ALPP Antibody HeLa WB. Western blot analysis of HeLa cell lysate using ALPP Antibody / Placental Alkaline Phosphatase Antibody (clone ALP/9109R) detects a strong band at approximately 68-72 kDa, consistent with placental alkaline phosphatase / ALPP. The observed molecular weight is higher than the predicted core protein size due to extensive glycosylation and post-translational modification commonly associated with this glycosylphosphatidylinositol-anchored alkaline phosphatase family member.

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 ALPP Antibody Rabbit Monoclonal ALPP/9109R is developed to detect this trophoblast-associated alkaline phosphatase in research applications focused on tissue distribution and tumor-associated expression. 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.

In normal physiology, PLAP is strongly expressed on the apical membrane of syncytiotrophoblasts in placental chorionic villi. Because the enzyme is attached to the external surface of the plasma membrane through a glycosylphosphatidylinositol anchor, immunohistochemical detection typically demonstrates distinct membranous staining in trophoblastic cells, while stromal elements and most other adult tissues show minimal expression. This restricted distribution supports its use as a lineage-associated marker in tissue-based studies.

In oncologic research, ALPP expression has been extensively examined in germ cell tumors, particularly seminoma and embryonal carcinoma, as well as in certain trophoblastic neoplasms. Strong membranous and occasional cytoplasmic staining patterns are commonly observed in tumor epithelial cells in these settings, whereas most non-germ cell carcinomas display little to no staining. This differential expression profile enhances its value in studies evaluating germ cell differentiation and trophoblastic lineage markers within histologic architecture.

Although placental alkaline phosphatase shares structural similarity with tissue-nonspecific and intestinal alkaline phosphatase isoenzymes, its trophoblastic and germ cell-associated expression pattern is more defined. Clone ALPP/9109R is a rabbit monoclonal antibody developed for specific detection of ALPP in formalin-fixed, paraffin-embedded specimens and other research applications involving membrane-associated enzyme localization.

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 recombinant ALPP antibody ALPP/9109R should be determined by the researcher.

Immunogen

Recombinant full-length human Placental Alkaline Phosphatase protein was used as the immunogen for the recombinant ALPP antibody rabbit monoclonal ALPP/9109R.

Storage

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