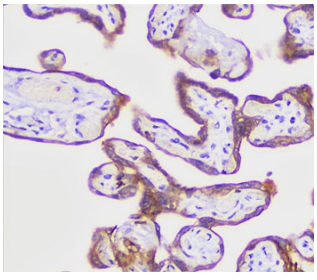
PLAP Antibody Recombinant Rabbit MAb KSUP-2R / Placental Alkaline Phosphatase [clone KSUP-2R] (V3976)

Catalog No.	Formulation	Size
V3976-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3976-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3976SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3976IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

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	KSUP-2R
Purity	Protein A affinity chromatography
UniProt	P05187
Localization	Cytoplasmic and cell surface
Applications	Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This PLAP antibody is available for research use only.



Immunohistochemistry of PLAP Antibody Recombinant Rabbit MAb KSUP-2R in human placenta. Formalin-fixed, paraffin-embedded human placental tissue demonstrates membranous HRP-DAB brown staining in syncytiotrophoblastic cells outlining chorionic villi, consistent with surface localization of placental alkaline phosphatase. Stromal cores show minimal background staining.

Description

Placental alkaline phosphatase is a glycosylphosphatidylinositol-anchored membrane enzyme encoded by the ALPP gene and commonly referred to as PLAP. The PLAP Antibody Recombinant Rabbit MAb KSUP-2R 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 within placental chorionic villi. Because the enzyme is anchored to the external surface of the plasma membrane through a glycosylphosphatidylinositol linkage, immunohistochemical detection typically demonstrates crisp membranous staining in trophoblastic cells, while underlying stromal elements show minimal signal. Expression in most non-placental adult tissues is limited, supporting its use as a lineage-associated marker in tissue-based studies.

In oncologic research, PLAP expression has been extensively characterized in germ cell tumors, particularly seminoma and embryonal carcinoma, as well as in selected trophoblastic neoplasms. Tumor cells in these settings often demonstrate strong membranous and occasional cytoplasmic staining, whereas most non-germ cell carcinomas exhibit minimal or absent expression. This relatively restricted distribution pattern enhances its value in research panels evaluating germ cell differentiation and trophoblastic lineage markers.

Although PLAP shares structural similarity with tissue-nonspecific and intestinal alkaline phosphatase isoenzymes, its trophoblastic and germ cell-associated expression profile is more defined. Clone KSUP-2R is a recombinant rabbit monoclonal antibody developed for specific detection of placental alkaline phosphatase in formalin-fixed, paraffin-embedded specimens and other research applications involving membrane-associated enzyme localization.

Application Notes

Optimal dilution of the recombinant PLAP antibody KSUP-2R should be determined by the researcher.
1. 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 protein was used as the immunogen for the PLAP antibody recombinant rabbit mAb KSUP-2R.

Storage

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

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