

Datasheet



Mouse mAb to **Placental alkaline phosphatase (PLAP)**
Clone **F5C2 (C2)**
Isotype **IgG1**

Source

A BALB/c mouse was immunized with PLAP, purified from FS phenotype human placenta.
Fusion partner: X63-Ag8.P635.

Specifications

PLAP is a tissue specific, throphoblast-derived, 58 kDa, glycosyl-phosphatidylinositol (GPI)-anchored, dimeric, Zn²⁺ metallated glycoprotein, only found in humans, orangutans and chimpanzees, that catalyzes the hydrolysis of phosphomonoesters into an inorganic phosphate and an alcohol. It is present in the placenta and serum of pregnant women and in high frequency in gynecological and testicular cancers and in lower frequency in other tumors. The three tissue-specific APs in humans, PLAP, germ cell AP (GCAP) and intestinal AP, are 90-98% homologous. Non tissue specific AP is found in kidney, liver and bone. F5C2 binds equally well to all common allelic variants (S,F, FS and I) of PLAP and to some variants of AP from normal human testis, while antibody H7E8 reacts with all variants of AP in normal human testis.

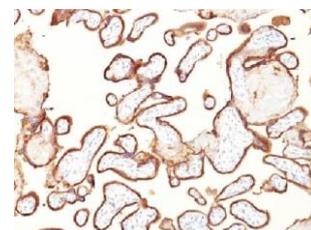


Figure 1: Human placenta stained for PLAP (paraffin)

Species reactivity

Positive: human.

Applications

F5C2 can be used as epitope-defined marker in germ cell tumors and is applicable on frozen sections directly as well as on paraffin sections after a heat induced antigen retrieval step. F5C2 can be used at least as tracer antibody in ELISA to detect PLAP in serum of S, F, FS and I phenotypes. F5C2 can also be used for immunosorbent purification and for radioimmuno-localization.

ELISA	Flow cytometry	Frozen sections	Immunoprecipitation	Paraffin sections	Western blotting
+	+	+	+	Citrate	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide.

Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

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Dilution advice

- ELISA (solid phase: not known; tracer: 0.001-100 µg/ml for 30 min at RT).
- Flow cytometry (0,5-1,0 µg/million cells in 0,1 ml).
- Immunoblotting (1.0-2.0 µg/ml).
- Immunohistology (formalin-fixed: 2-4 µg/ml for 30 min at RT; staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes).
- Immunoprecipitation (1-2 µg per 100-500 µg of total cell lysate protein/1 ml of anti-mouse coated Sepharose-4B suspension).

Positive control

Human placenta.

References

- Millan J.L. et al, *Eur. J. Biochem.* **136**: 1-7 (1983).