PLAP (HD 3F6): sc-53415

BACKGROUND
Alkaline phosphatases (AP) are glycosyl-phosphatidylinositol (GPI)-anchored, dimeric, Zn²⁺ metallated glycoproteins that catalyze the hydrolysis of phosphomonoesters into an inorganic phosphate and an alcohol. Placental alkaline phosphatase (PLAP, ALPP, PALP, placental ALP-1, Regan isozyme) is a 530 amino acid, tissue specific AP that is expressed in the placenta, the serum of pregnant women and ectopically expressed in various cancers including those of the ovary and testis. PLAP may assist in guiding migratory cells and transporting specific molecules, such as fatty acids and immunoglobulins, across the plasma membrane. The three tissue-specific APs identified in human, PLAP germ cell AP (GCAP) and intestinal AP, are 90-98% homologous and their genes are clustered on chromosome 2q. PLAP expression differs in tumor cell lines, with a 70 kDa form appearing in Hep2 and KB lines, and 70 and 95 kDa forms in the testis lines Tera II and Ep2102.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: ALPP (human) mapping to 2q37.1.

STORAGE
Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE
PLAP (HD 3F6) is a mouse monoclonal antibody raised against Hep-2 cells expressing PLAP surface protein of human origin.

PRODUCT
Each vial contains 200 µg IgG2a in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
PLAP (HD 3F6) is recommended for detection of PLAP of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).
Suitable for use as control antibody for PLAP siRNA (h): sc-38919.
Molecular Weight of PLAP: 70 kDa.

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

PROTOCOLS
See our web site at www.scbt.com or our catalog for detailed protocols and support products.

REFERENCES

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