Alkaline Phosphatase (G-9): sc-398461

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 (also known as PLAP, ALPP, PALP, placental ALP-1 or 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.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: ALPP/ALPPL2/ALPI (human) mapping to 2q37.1; Alpl (mouse) map 4.5; Alppl2/Alpi (mouse) map 4.5.

SOURCE
Alkaline Phosphatase (G-9) is a mouse monoclonal antibody raised against amino acids 31-330 mapping near the N-terminus of PLAP of human origin.

PRODUCT
Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
Alkaline Phosphatase (G-9) is recommended for detection of PLAP, ALPPL2 and IAP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Alkaline Phosphatase: 70 kDa.
Positive Controls: Hela whole cell lysate: sc-2200, PLAP (h): 293T Lysate: sc-113546 or human placenta extract: sc-363772.

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

DATA

SELECT PRODUCT CITATIONS

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

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

See PLAP (8B6): sc-47691 for PLAP antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.