

**Mouse Anti-PLAP [ALP/870]: MC0915, MC0915RTU7**

**Intended Use:** For Research Use Only

**Description:** Alkaline phosphatases (ALP) are dimeric enzymes by glycosylphosphatidylinositol anchors to the cell membrane. There are at least four distinct but related isozymes: placenta ALP (PLAP), germ cell ALP (PLAP-like or GCAP), intestinal ALP (IAP) and non-specific tissue ALP (TNAP). These isozymes may serve to guide migratory cells, to transport specific molecules such as fat and immunoglobulins across membranes or to detoxify lipopolysaccharide and prevent bacterial invasion across the gut mucosal barrier. This antibody specifically recognizes PLAP and GCAP. PLAP is expressed in the human placenta beginning late in the first trimester of pregnancy. GCAP is expressed in normal endocervix and fallopian tube. Ectopic expression of GCAP is associated with germ cell tumors: intratubular germ cell neoplasia, unclassified (IGCNU), seminoma, embryonal carcinoma and choriocarcinoma. PLAP has been used as a marker for germ cell tumor. Clinically, it is useful for the identification of primary intracranial germinoma.

**Specifications:**

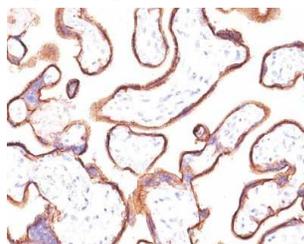
Clone: ALP/870  
 Source: Mouse  
 Isotype: IgG2b/k  
 Reactivity: Human  
 Localization: Membrane, cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and  $\leq 0.09\%$  sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC, Flow Cyt., IF  
 Package:

| Description       | Catalog No. | Size |
|-------------------|-------------|------|
| PLAP Concentrated | MC0915      | 1 ml |
| PLAP Prediluted   | MC0915RTU7  | 7 ml |

**IHC Procedure\*:**

Positive Control Tissue: Seminoma, placenta  
 Concentrated Dilution: 100-300  
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human placenta tissue stained with anti-PLAP using DAB

**References:**

1. Regulation of the osteogenic and adipogenic differentiation of bone marrow-derived stromal cells by extracellular uridine triphosphate: Li W, et al. The role of P2Y2 receptor and ERK1/2 signaling. *Int J Mol Med* 37:63-73, 2016.
2. Enzyme-Instructioned Self-Assembly for Spatiotemporal Profiling of the Activities of Alkaline Phosphatases on Live Cells. Zhou J, et al. *Chem* 1:246-263, 2016.
3. Proteolytic activation of the protease-activated receptor (PAR)-2 by the glycosylphosphatidylinositol-anchored serine protease testisin. Driesbaugh KH, et al. *J Biol Chem* 290:3529-41, 2015.
4. Syncytin proteins incorporated in placenta exosomes are important for cell uptake and show variation in abundance in serum exosomes from patients with preeclampsia. Vargass A, et al. *FASEB J* 28:3703-19, 2014.

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