# Alkaline Phosphatase (PT1342R) PT™ Rabbit mAb

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| **Catalog No** | YP-Ab-18969 |
| **Isotype** | IgG,Kappa |
| **Reactivity** | Human,Mouse,Rat |
| **Applications** | WB;IHC;IF;IP;ELISA |
| **Gene Name** | ALPL |
| **Protein Name** | Alkaline phosphatase tissue-nonspecific isozyme |
| **Immunogen** | |
| **Specificity** | Endogenous |
| **Formulation** | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA |
| **Source** | Monoclonal,Rabbit,IgG |
| **Purification** | Protein A |
| **Dilution** | IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | ALPL ; Alkaline phosphatase ; tissue-nonspecific isozyme ; AP-TNAP ; TNSALP ; Alkaline phosphatase liver/bone/kidney isozyme |
| **Observed Band** | 80kD |
| **Calculated Molecular Weight** | 57kD |
| **Cell Pathway** | Cell membrane ; Lipid-anchor, GPI-anchor . Extracellular vesicle membrane ; Lipid-anchor, GPI-anchor . Mitochondrion membrane ; Lipid-anchor, GPI-anchor . Mitochondrion intermembrane space . Localizes to special class of extracellular vesicles, named matrix vesicles (MVs), which are released by osteogenic cells. Localizes to the mitochondria of thermogenic fat cells: tethered to mitochondrial membranes via a GPI-anchor and probably resides in the mitochondrion intermembrane space. . |
| **Tissue Specificity** | Brain,Cerebellum,Liver,Lymphoma,Osteosarcoma,Peripheral nerve,Semin |
| **Function** | Catalytic activity:A phosphate monoester + H(2)O = an alcohol + phosphate.,cofactor:Binds 1 magnesium ion.,cofactor:Binds 2 zinc ions.,Disease:Defects in ALPL are a cause of hypophosphatasia adult type (hypophosphatasia) [MIM:146300].,Disease:Defects in ALPL are a cause of hypophosphatasia childhood (hypophosphatasia) [MIM:241510].,Disease:Defects in ALPL are a cause of hypophosphatasia infantile (hypophosphatasia) [MIM:241500]; an inherited metabolic bone disease characterized by defective skeletal mineralization. Four hypophosphatasia forms are distinguished, |

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| | depending on the age of onset: perinatal, infantile, childhood and adult type. The perinatal form is the most severe and is almost always fatal. Patients with only premature loss of deciduous teeth, but with no bone disease are regarded as having odontohypophosphatasia (odonto).,Function:This isozyme may play a role in skeletal mineralization.,miscellaneous:In most mammals there are four different isozymes: placental, placental-like, intestinal and tissue non-specific (liver/bone/kidney).,online information:Alkaline phosphatase entry,online information:Tissue nonspecific alkaline phosphatase gene mutations database,PTM:Glycosylated.,similarity:Belongs to the alkaline phosphatase family.,subunit:Homodimer., |
| **Background** | This gene encodes a member of the alkaline phosphatase family of proteins. There are at least four distinct but related alkaline phosphatases: intestinal, placental, placental-like, and liver/bone/kidney (tissue non-specific). The first three are located together on chromosome 2, while the tissue non-specific form is located on chromosome 1. The product of this gene is a membrane bound glycosylated enzyme that is not expressed in any particular tissue and is, therefore, referred to as the tissue-nonspecific form of the enzyme. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature enzyme. This enzyme may play a role in bone mineralization. Mutations in this gene have been linked to hypophosphatasia, a disorder that is characterized by hypercalcemia and skeletal defects. |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

## Products Images