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Rabbit Anti-Phospho1/PE Conjugated antibody

SL12562R-PE

Product Name	Anti-Phospho1/PE
Chinese Name	PE 标记的细胞质磷酸酶 1 抗体
Alias	EC 3.1.3.75; PHOP1_HUMAN; Phosphatase orphan 1; Phosphatase, orphan 1; Phospho 1; phospho1; Phosphoethanolamine/phosphocholine phosphatase.
Research Area	Cell biology Developmental biology Signal transduction Stem cells Kinases and Phosphatases
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse(predicted:Rat,Dog,Pig,Cow,Horse,Rabbit)
Applications	ICC=1:50-200 IF=1:50-200 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	30kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Phospho1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** PHOSPHO1 is a 267 amino acid phosphatase that is a member of the haloacid dehalogenase (HAD) superfamily of magnesium-dependent hydrolases. PHOSPHO1 is highly expressed in bone and cartilage and localizes to the osteoid layer of the periosteum. PHOSPHO1 is restricted to sites of

mineralization and its inhibition decreases the ability of matrix vesicles to calcify in bone, suggesting that the protein may play a role in the matrix mineralization process during skeletal development. PHOSPHO1 cleaves phosphoethanolamine and phosphocholine to generate inorganic phosphate for bone mineralization. PHOSPHO1 contains three catalytic motifs that are conserved within the haloacid dehalogenase superfamily.

Function:
Phosphatase that has a high activity toward phosphoethanolamine (PEA) and phosphocholine (PCho). Involved in the generation of inorganic phosphate for bone mineralization.

Tissue Specificity:
Expressed at sites of mineralization in bone and cartilage. Highly expressed in osteoblast cell line SaOS-2 which produces a mineralized matrix, but not in MG-63 cell line, which do not mineralize.

Similarity:
Belongs to the HAD-like hydrolase superfamily. PHOSPHO family.

Database links:
UniProtKB/Swiss-Prot: Q8TCT1.1

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.