Data Sheet (Cat.No.TMAY-02360)

Anti-PHPT1 Antibody (9K764)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	9K764
Purification:	Protein A

Applications

Verified Activity:	1. Anti-PHPT1 rabbit monoclonal antibody at 1:500 dilution. -Lane A: HepG2 Whole Cell Lysate. -Lane B: THP1 Whole Cell Lysate. -Lane C: MCF7 Whole Cell lysate. -Lysates/proteins at 30 µg per lane. -Secondary -Goat Anti- Rabbit IgG H&L (Dylight 800) at 1/10000 dilution. -Developed using the Odyssey technique. -Performed under reducing conditions. -Predicted band size:14 kDa. -Observed band size:14 kDa. 2. PHPT1 was immunoprecipitated using: -Lane A:0.5 mg HepG2 Whole Cell Lysate. -4 µL anti-PHPT1 rabbit monoclonal antibody and 60 µg of Immunomagnetic beads Protein A/G. -Primary antibody: -Anti-PHPT1 rabbit monoclonal antibody, at 1:100 dilution. -Secondary antibody: -Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution. -Developed using the ECL technique. -Performed under reducing conditions. -Predicted band size: 14 kDa. -Observed band size:14 kDa
Application:	IP,WB
Recommended	WB: 1:500-1:2000; IP: 1-5 µL/mg of lysate

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein: Human PHPT1 protein (TMPY-02002)

Antigen Species: Human

Synonyms: CGI-202;PHP14;HEL-S-132P;phosphohistidine phosphatase 1;HSPC141

Research Background

PHPT1, also known as 14 kDa phosphohistidine phosphatase, phosphohistidine phosphatase 1, protein janus-A homolog, PHP14, is a cytoplasm protein which belongs to the janus family. PHPT1 / PHP14 is expressed abundantly in heart and skeletal muscle. Phosphatases are a diverse group of enzymes that regulate numerous cellular processes. Much of what is known relates to the tyrosine, threonine, and serine phosphatases, whereas the histidine phosphatases have not been studied as much. Protein histidine phosphorylation exists widely in vertebrates, and it plays important roles in signal transduction and other cellular functions. Protein histidine phosphorylation accounts for about 6% of the total protein phosphorylation in eukaryotic cells. The knowledge about eukaryotic PHPT (protein histidine phosphatase) is still very limited. To date, only one vertebrate PHPT has been discovered, and two crystal structures of human PHPT1 have been solved. PHPT1 / PHP14 can dephosphorylate a variety of proteins (e.g. ATP-citrate lyase and the beta-subunit of G proteins). A putative active site has been identified by its electrostatic character, ion binding, and conserved protein residues.

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