10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# TRAP Antibody

Rabbit mAb
Catalog # AP91800

## Product Information

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|---|---|
| **Application** | WB, IHC, IF, ICC, IP, IHF |
| **Primary Accession** | P13686 |
| **Reactivity** | Rat, Human, Mouse |
| **Clonality** | Monoclonal |
| **Other Names** | TRAP; SPENCDI; TrATPase; |
| **Isotype** | Rabbit IgG |
| **Host** | Rabbit |
| **Calculated MW** | 36599 |

## Additional Information

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|---|---|
| **Dilution** | WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:50 |
| **Purification** | Affinity-chromatography |
| **Immunogen** | A synthesized peptide derived from human Tartrate Resistant Acid Phosphatase |
| **Description** | Involved in osteopontin/bone sialoprotein dephosphorylation. Its expression seems to increase in certain pathological states such as Gaucher and Hodgkin diseases, the hairy cell, the B-cell, and the T-cell leukemias. |
| **Storage Condition and Buffer** | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |

## Protein Information

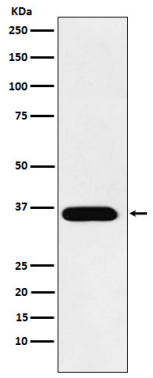
| | |
|---|---|
| **Name** | ACP5 ( HGNC:124) |
| **Function** | Functions as a binuclear Fe(III)-Fe(II) acid phosphatase that hydrolyzes phosphate esters to alcohols and phosphate under acidic conditions (PubMed:1477968, PubMed:2775236). Dephosphorylates a broad range of substrates, including adenosine 5'-diphosphate (ADP), adenosine 5'-triphosphate (ATP), as well as larger phosphoproteins such as osteopontin (SPP1), a highly phosphorylated bone matrix protein, bone sialoprotein (IBSP) and synthetic compounds such as para- nitrophenyl phosphate (p-NPP) (By similarity). Through the dephosphorylation of bone matrix proteins, plays a crucial role in normal cartilage mineralization during skeletal development and in maintaining and remodeling bone integrity in adults (By similarity). Promotes osteoclast migration by dephosphorylating SPP1, which binds osteoclasts to the bone matrix (By similarity). Also involved in immune regulation and macrophage function, contributes to the breakdown of internalized pathogens within lysosomes (By similarity). Regulates immune cell recruitment during infection, partly via interaction with SPP1 (By |

similarity). The uncleaved form (isoform 5a) functions primarily in immune regulation rather than bone resorption (By similarity). May contribute to the removal of mannose-6-phosphate (Man6P) from lysosomal proteins after their delivery to lysosomes, acting in concert with ACP2 (By similarity).

**Cellular Location**

Lysosome {ECO:0000250|UniProtKB:Q05117}. Secreted. Note=The uncleaved form (isoform 5a) is secreted by macrophage and dendritic cell. The cleaved form (isoform 5b) is secreted by osteoclasts.

## Images




Western blot analysis of Tartrate Resistant Acid Phosphatase expression in A431 cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.