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Anti-ACP5 Antibody

Catalog # AP95645

Product Information

Application	WB, FC
Primary Accession	P13686
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	36599

Additional Information

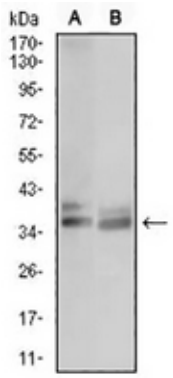
Gene ID	54
Other Names	Tartrate-resistant acid phosphatase type 5; TR-AP; Tartrate-resistant acid ATPase; TrATPase; Type 5 acid phosphatase
Target/Specificity	Recombinant fusion protein of human ACP5 expressed in E. Coli
Dilution	WB~~WB (1/500 - 1/1000) FC~~FC (1/100 - 1/200)
Format	Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

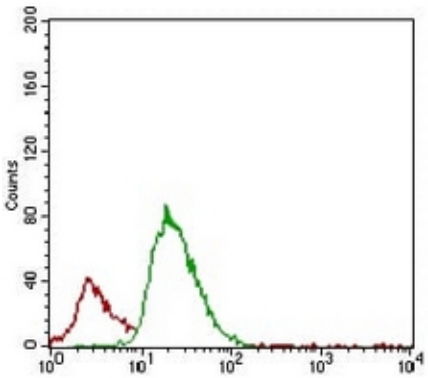
Name	ACP5 (HGNC:124)
Function	Functions as a binuclear Fe(III)-Fe(II) acid phosphatase that hydrolyzes phosphate esters to alcohols and phosphate under acidic conditions (PubMed:1477968, PubMed:2775236). Dephosphorylates a broad range of substrates, including adenosine 5'-diphosphate (ADP), adenosine 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 ACP5 expression in JURKAT (A), OCM1 (B) whole cell lysates. (Predicted band size: 37 kD; Observed band size: 36 kD)



Flow cytometric analysis of Jurkat cells using Anti-ACP5 Antibody (green) and negative control (red).

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