## **Recombinant Mouse ACP5/TRAP Protein (His Tag)**

Catalog Number: PKSM040765



Note: Centrifuge before opening to ensure complete recovery of vial contents.

### **Description**

Synonyms TRACP;TRAP

Species Mouse

Expression Host
Sequence
Met 1-Pro 327
Accession
NP\_031414.1
Calculated Molecular Weight
Observed molecular weight
Tag
HEK293 Cells
Met 1-Pro 327
NP\_031414.1
35.8 kDa
C-His

**Bioactivity** Measured by its ability to cleave a substrate, p-Nitrophenyl phosphate (pNPP). The

specific activity is > 9, 000 pmoles/min/μg.

#### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, pH 7.4

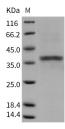
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 95 % as determined by reducing SDS-PAGE.

#### **Background**

Tartrate-resistant acid phosphatase (TRACP) or acid phosphatase 5, tartrate resistant (ACP5 or TRAP) is a glycosylated monomeric metalloenzyme expressed in mammals. TRACP is associated with osteoblast migration to bone resorption sites, and, once there, TRACP is believed to initiate osteoblast differentiation, activation, and proliferation. TRACP once considered to be just a histochemical marker of osteoclasts is now recognised to be a molecule of widespread occurrence with functions in both the skeleton and the immune system. Two forms of TRACP circulate in human blood, TRACP 5a derived from macrophages and dendritic cells, and TRACP-5b derived from osteoclasts. Recent data have demonstrated

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the utility of TRACP-5b as a marker of osteoclast number and bone resorption, and serum TRACP-5a as a marker of inflammatory conditions. TRACP is expressed by osteoclasts, macrophages, dendritic cells and a number of other cell types. It has a critical role in many biological processes including skeletal development, collagen synthesis and degradation, the mineralisation of bone, cytokine production by macrophages and dendritic cells, macrophage recruitment, dendritic cell maturation and a role in the development of Th1 responses.

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