

TRAP (H-300): sc-28204

BACKGROUND

Tartrate-resistant acid phosphatase (TRAP, ACP5) is an iron containing glycoprotein that catalyzes the conversion of orthophosphoric monoester to alcohol and orthophosphate. TRAP is the most basic of the acid phosphatases and is the only form not inhibited by L⁺-tartrate. TRAP is a relatively minor lysosomal enzyme which may be activated in certain pathologies such as Hodgkin's disease and B- and T-cell leukemias. Receptor activator of NFκB ligand (RANKL) plays an essential role in osteoclast differentiation and activation by increasing the expression of protease osteoclast markers such as TRAP. TRAP has collagenolytic activity and plays a major role in ligament degradation.

REFERENCES

1. Fleckenstein, E., et al. 1996. Cloning and characterization of the human tartrate-resistant acid phosphatase (TRAP) gene. *Leukemia* 10: 637-643.
2. Fleckenstein, E.C., et al. 2000. The human tartrate-resistant acid phosphatase (TRAP): involvement of the hemin responsive elements (HRE) in transcriptional regulation. *Leuk. Lymphoma* 36: 603-612.

CHROMOSOMAL LOCATION

Genetic locus: ACP5 (human) mapping to 19p13.2; Acp5 (mouse) mapping to 9 A3.

SOURCE

TRAP (H-300) is a rabbit polyclonal antibody raised against amino acids 24-323 mapping at the C-terminus of TRAP of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TRAP (H-300) is recommended for detection of TRAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRAP (H-300) is also recommended for detection of TRAP in additional species, including porcine.

Suitable for use as control antibody for TRAP siRNA (h): sc-44164, TRAP siRNA (m): sc-155973, TRAP shRNA Plasmid (h): sc-44164-SH, TRAP shRNA Plasmid (m): sc-155973-SH, TRAP shRNA (h) Lentiviral Particles: sc-44164-V and TRAP shRNA (m) Lentiviral Particles: sc-155973-V.

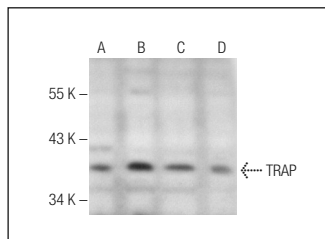
Molecular weight of TRAP: 34 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 whole cell lysate: sc-2233 or U266 whole cell lysate: sc-364800.

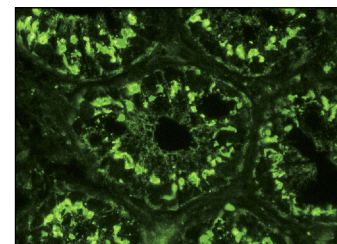
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TRAP (H-300): sc-28204. Western blot analysis of TRAP expression in PMA treated K-562 (A), PMA treated Jurkat (B), MOLT-4 (C) and U266 (D) whole cell lysates.



TRAP (H-300): sc-28204. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining.

SELECT PRODUCT CITATIONS

1. Krawetz, R., et al. 2009. Osteoblasts suppress high bone turnover caused by osteolytic breast cancer *in vitro*. *Exp. Cell Res.* 315: 2333-2342.
2. Shakibaei, M., et al. 2011. Resveratrol-mediated SIRT-1 interactions with P300 modulate RANKL-activation of NFκB signalling and inhibit osteoclastogenesis in bone-derived cells. *J. Biol. Chem.* 286: 11492-11505.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **TRAP (D-3): sc-376875**, our highly recommended monoclonal alternative to TRAP (H-300).