

# TRAP (N-17): sc-30832

## 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<sup>+</sup>-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. Wittrant Y., et al. 2003. Regulation of osteoclast protease expression by RANKL. *Biochem. Biophys. Res. Commun.* 310: 774-778.
2. Capeller, B., et al. 2003. Evaluation of tartrate-resistant acid phosphatase (TRAP) 5b as serum marker of bone metastases in human breast cancer. *Anticancer Res.* 23: 1011-1015.

## CHROMOSOMAL LOCATION

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

## SOURCE

TRAP (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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.

Blocking peptide available for competition studies, sc-30832 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TRAP (N-17) 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), 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 (N-17) is also recommended for detection of TRAP in additional species, including canine, bovine and 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.

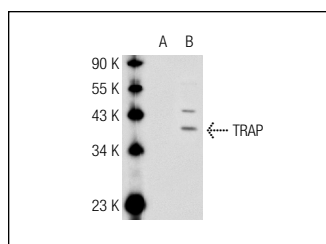
Molecular Weight of TRAP: 34 kDa.

Positive Controls: TRAP (h2): 293T Lysate: sc-178082.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



TRAP (N-17): sc-30832. Western blot analysis of TRAP expression in non-transfected: sc-117752 (A) and human TRAP transfected: sc-178082 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Morgan, E.F., et al. 2008. Combined effects of recombinant human BMP-7 (rhBMP-7) and parathyroid hormone (1-34) in metaphyseal bone healing. *Bone* 43: 1031-1038.
2. Pedrosa, W.F., et al. 2009. Immunohistochemical, tomographic and histological study on onlay bone graft remodeling. Part II: calvarial bone. *Clin. Oral Implants Res.* 20: 1254-1264.
3. Qing Hong, Z., et al. 2013. The effect of rotative stress on CAII, FAS, FASL, OSCAR, and TRAP gene expression in osteoclasts. *J. Cell. Biochem.* 114: 388-397.

## 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.

**MONOS**  
Satisfaction  
Guaranteed

Try **TRAP (D-3): sc-376875**, our highly recommended monoclonal alternative to TRAP (N-17).