

TRAP- α (41-Q): sc-100314

BACKGROUND

The TRAP proteins (translocon-associated proteins), TRAP- α , TRAP- β , TRAP- γ and TRAP- δ , are transmembrane proteins that comprise a heterotetramer complex (the signal sequence receptor (SSR) or TRAP complex) that localizes to the endoplasmic reticulum (ER) and functions in regulating the retention of ER resident proteins. The TRAP complex associates with the Sec61 translocon at the ER. Sec61 is the major complex mediating protein translocation across the ER membrane. In addition, the TRAP complex is involved in ER-associated degradation (ERAD); in response to ER stress the TRAP complex subunits are simultaneously induced by the XBP-1/IRE1 α pathway. TRAP- α (also known as SSR1 or SSR- α), TRAP- β (also known as SSR- β , SSR2 or TLAP) and TRAP- δ (also known as SSR4) are all single-pass membrane proteins, while TRAP- γ (also known as SSR3 or SSR- γ) contains four transmembrane domains.

REFERENCES

- Hartmann, E., et al. 1993. A tetrameric complex of membrane proteins in the endoplasmic reticulum. *Eur. J. Biochem.* 214: 375-381.
- Brenner, V., et al. 1997. Genomic organization of two novel genes on human Xq28: compact head to head arrangement of IDH γ and TRAP δ is conserved in rat and mouse. *Genomics* 44: 8-14.

CHROMOSOMAL LOCATION

Genetic locus: SSR1 (human) mapping to 6p24.3; Ssr1 (mouse) mapping to 13 A3.3.

SOURCE

TRAP- α (41-Q) is a mouse monoclonal antibody raised against recombinant TRAP- α of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TRAP- α (41-Q) is recommended for detection of TRAP- α of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution to be determined by researcher, dilution range 1:100-1:5000), immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:2500) and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for TRAP- α siRNA (h): sc-63153, TRAP- α siRNA (m): sc-63154, TRAP- α shRNA Plasmid (h): sc-63153-SH, TRAP- α shRNA Plasmid (m): sc-63154-SH, TRAP- α shRNA (h) Lentiviral Particles: sc-63153-V and TRAP- α shRNA (m) Lentiviral Particles: sc-63154-V.

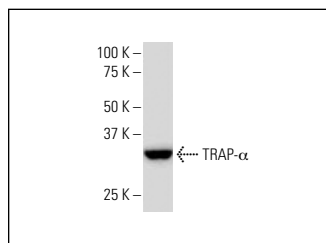
Molecular Weight of TRAP- α : 32 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209 or T-47D cell lysate: sc-2293.

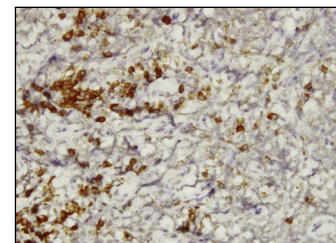
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TRAP- α (41-Q): sc-100314. Western blot analysis of TRAP- α expression in HL-60 whole cell lysate.



TRAP- α (41-Q): sc-100314. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human tonsil tissue showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Chen, X., et al. 2018. 18 β -glycyrrhetic acid inhibits osteoclastogenesis *in vivo* and *in vitro* by blocking RANKL-mediated RANK-TRAF6 interactions and NF κ B and MAPK signaling pathways. *Front. Pharmacol.* 9: 647.
- Fei, W.Y., et al. 2019. Magnolol prevents ovariectomy-induced bone loss by suppressing osteoclastogenesis via inhibition of the nuclear factor- κ B and mitogen-activated protein kinase pathways. *Int. J. Mol. Med.* 43: 1669-1167.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.