

TAUT (E-10): sc-166640

BACKGROUND

Taurine is an abundant organic osmolyte that possesses antioxidant and immunomodulatory properties and plays a role in cell volume homeostasis. Taurine is taken up into cells via the taurine transporter (TAUT). TAUT, which is sodium- and chloride-dependent, is a multi-pass membrane protein belonging to the sodium neurotransmitter symporter (SNF) family of proteins. TNF α upregulates TAUT expression, while phosphorylation on Serine 322 down-regulates it. Overexpression of TAUT protects renal cells from cisplatin-induced nephrotoxicity.

REFERENCES

1. Jhiang, S.M., et al. 1993. Cloning of the human taurine transporter and characterization of taurine uptake in thyroid cells. *FEBS Lett.* 318: 139-144.
2. Ramamoorthy, S., et al. 1994. Functional characterization and chromosomal localization of a cloned taurine transporter from human placenta. *Biochem. J.* 300: 893-900.

CHROMOSOMAL LOCATION

Genetic locus: SLC6A6 (human) mapping to 3p25.1; Slc6a6 (mouse) mapping to 6 D1.

SOURCE

TAUT (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 397-424 within an internal region of TAUT of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166640 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TAUT (E-10) is recommended for detection of TAUT of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TAUT (E-10) is also recommended for detection of TAUT in additional species, including porcine.

Suitable for use as control antibody for TAUT siRNA (h): sc-61648, TAUT siRNA (m): sc-61649, TAUT shRNA Plasmid (h): sc-61648-SH, TAUT shRNA Plasmid (m): sc-61649-SH, TAUT shRNA (h) Lentiviral Particles: sc-61648-V and TAUT shRNA (m) Lentiviral Particles: sc-61649-V.

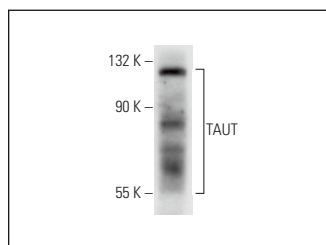
Molecular Weight of TAUT isoforms: 49-132 kDa.

Positive Controls: ARPE-19 whole cell lysate: sc-364357, Y79 cell lysate: sc-2240 or Jurkat whole cell lysate: sc-2204.

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.

DATA



TAUT (E-10): sc-166640. Western blot analysis of TAUT expression in Y79 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Márquez, A., et al. 2010. Localization of taurine transporter and zinc transporters in rat retinal cells and tissue: effect of intracellular zinc chelation. *J. Mol. Pathophysiol.* 37: 769-778.
2. Jung, M.K., et al. 2013. Expression of taurine transporter (TAUT) is modulated by heat shock factor 1 (HSF1) in motor neurons of ALS. *Mol. Neurobiol.* 47: 699-710.
3. Larsen, L.H., et al. 2017. Gestational protein restriction in wistar rats; effect of taurine supplementation on properties of newborn skeletal muscle. *Adv. Exp. Med. Biol.* 975: 413-433.
4. D'Amico, D., et al. 2019. The RNA-binding protein PUM2 impairs mitochondrial dynamics and mitophagy during aging. *Mol. Cell* 73: 775-787.e10.

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.