

TPN (P-16): sc-14374

BACKGROUND

TPN (tapasin, TPSN, TAPBP, transporter associated with antigen processing-A, TAP-A) is a type I membrane glycoprotein whose cDNA maps to chromosome 6p21.32 and encodes a 488 residue protein. Phosphorylation of TAP (transporter associated with antigen processing), a heterodimer consisting of TAP1 and TAP2, causes the assembly of high molecular weight complexes which contain TPN and facilitate the transfer of peptide antigens onto major histocompatibility complex (MHC) class I molecules. TPN mediates the association of newly assembled MHC class I molecules with TAP and controls antigen loading in the lumen of the endoplasmic reticulum. The cytoplasmic portion of TPN contains a double-lysine motif (-KKKAE-COOH) that is believed to mediate retention in the endoplasmic reticulum. TPN knockout mice show defects in the cell surface expression of MHC class I molecules, antigen presentation to CD8⁺ T cells, and other humoral responses, suggesting that TPN is important for retention of empty MHC class I molecules in the ER.

CHROMOSOMAL LOCATION

Genetic locus: TAPBP (human) mapping to 6p21.32.

SOURCE

TPN (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TPN 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-14374 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

TPN (P-16) is recommended for detection of TPN of 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TPN (P-16) is also recommended for detection of TPN in additional species, including porcine.

Suitable for use as control antibody for TPN siRNA (h): sc-42986, TPN shRNA Plasmid (h): sc-42986-SH and TPN shRNA (h) Lentiviral Particles: sc-42986-V.

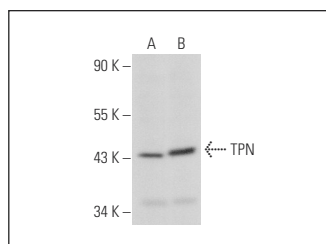
Molecular Weight of TPN: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HL-60 whole cell lysate: sc-2209 or A-431 whole cell lysate: sc-2201.

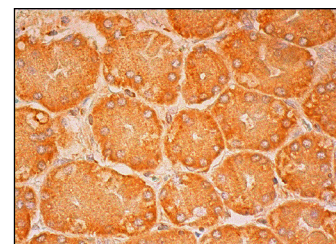
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



TPN (P-16): sc-14374. Western blot analysis of TPN expression in HeLa (A) and A-431 (B) whole cell lysates.



TPN (P-16): sc-14374. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **TPN (E-11): sc-393552** or **TPN (F-6): sc-514852**, our highly recommended monoclonal alternatives to TPN (P-16).