

THP (H-135): sc-20631

BACKGROUND

Tamm-Horsfall glycoprotein (also referred to as uromodulin or THP) is the most abundant protein found in normal urine. THP is expressed on the luminal surface of the membrane with the glycosyl phosphatidylinositol (GPI) anchor and excreted in urine at a rate of 50-100 μ g per day. THP, uropontin and nephrocalcin are the three known urinary glycoproteins that affect the formation of calcium-containing kidney stones. THP is synthesized by kidney epithelial cells and is believed to play important and diverse roles in the urinary system, including renal water balance, immunosuppression, urinary stone formation and inhibition of bacterial adhesion. THP is nontoxic and blocks early events required for normal T-cell proliferation *in vitro*. The gene which encodes THP and is a candidate gene for nephrolithiasis maps to human chromosome 16p12.3.

CHROMOSOMAL LOCATION

Genetic locus: UMOD (human) mapping to 16p12.3; Umod (mouse) mapping to 7 F2.

SOURCE

THP (H-135) is a rabbit polyclonal antibody raised against amino acids 291-425 of THP of human origin.

PRODUCT

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

APPLICATIONS

THP (H-135) is recommended for detection of THP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), 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).

THP (H-135) is also recommended for detection of THP in additional species, including porcine.

Suitable for use as control antibody for THP siRNA (h): sc-41064, THP siRNA (m): sc-41065, THP shRNA Plasmid (h): sc-41064-SH, THP shRNA Plasmid (m): sc-41065-SH, THP shRNA (h) Lentiviral Particles: sc-41064-V and THP shRNA (m) Lentiviral Particles: sc-41065-V.

Molecular Weight of THP: 85 kDa.

Positive Controls: THP (m): 293T Lysate: sc-127653 or mouse kidney extract: sc-2255.

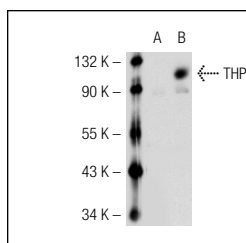
STORAGE

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

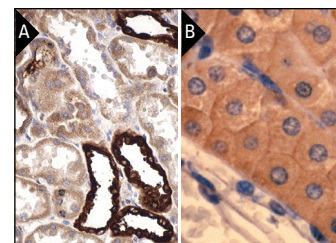
RESEARCH USE

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

DATA



THP (H-135): sc-20631. Western blot analysis of THP expression in non-transfected: sc-117752 (A) and mouse THP transfected: sc-127653 (B) 293T whole cell lysates.



THP (H-135): sc-20631. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in distal tubules (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing membrane and extracellular localization (B).

SELECT PRODUCT CITATIONS

- Joraku, A., et al. 2009. *In vitro* generation of three-dimensional renal structures. *Methods* 47: 129-133.
- Fernández-Llama, P., et al. 2010. Tamm-Horsfall protein and urinary exosome isolation. *Kidney Int.* 77: 736-742.
- Li, Y., et al. 2010. Involvement of urinary proteins in the rat strain difference in sensitivity to ethylene glycol-induced renal toxicity. *Am. J. Physiol. Renal Physiol.* 299: F605-F615.
- Masuda, S., et al. 2010. Expression of angiotensin II type 1 receptor-interacting molecule in normal human kidney and IgA nephropathy. *Am. J. Physiol. Renal Physiol.* 299: F720-F731.
- Gwathmey, T.M., et al. 2010. Nuclear angiotensin-(1-7) receptor is functionally coupled to the formation of nitric oxide. *Am. J. Physiol. Renal Physiol.* 299: F983-F990.
- Matsuda, M., et al. 2011. Involvement of Runx3 in the basal transcriptional activation of the mouse angiotensin II type 1 receptor-associated protein gene. *Physiol. Genomics* 43: 884-894.
- Anders, C., et al. 2013. *Ex vivo* modeling of chemical synergy in prenatal kidney cystogenesis. *PLoS ONE* 8: e57797.
- Okumura, N., et al. 2013. Diversity in protein profiles of individual calcium oxalate kidney stones. *PLoS ONE* 8: e68624.
- Kemter, E., et al. 2013. Type of uromodulin mutation and allelic status influence onset and severity of uromodulin-associated kidney disease in mice. *Hum. Mol. Genet.* E-Published.



Try **THP (B-2): sc-271022** or **THP (B-5): sc-271023**, our highly recommended monoclonal alternatives to THP (H-135).