THP (B-2): sc-271022

**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 mg per day. THP, uropentin 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

THP (B-2) is a mouse monoclonal antibody raised against amino acids 291-425 of THP of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. THP (B-2) is available conjugated to agarose (sc-271022 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271022 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271022 PE), fluorescein (sc-271022 FITC), Alexa Fluor® 488 (sc-271022 AF488), Alexa Fluor® 568 (sc-271022 AF568), Alexa Fluor® 594 (sc-271022 AF594) or Alexa Fluor® 647 (sc-271022 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271022 AF680) or Alexa Fluor® 790 (sc-271022 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**STORAGE**

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

**APPLICATIONS**

THP (B-2) is recommended for detection of THP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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: human breast extract: sc-363753.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGk BP-HRP: sc-516102 or m-IgGk 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-IgGk BP-FITC: sc-516140 or m-IgGk 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-IgGk BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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