

# THEM2 (H-88): sc-135431

## BACKGROUND

Esterases comprise a superfamily of hydrolase enzymes that use water to catalyze the dissociation of an ester into an acid and an alcohol. The thioesterases, a subfamily of esterase proteins, exhibit thiol-specific esterase activity. THEM2 (thioesterase superfamily member 2), also known as HT012 or PNAS-27, is a 140 amino acid protein that belongs to the thioesterase subfamily of esterase enzymes. Highly expressed in kidney with moderate expression in brain, liver and intestines, THEM2 contains a hotdog-fold and is thought to co-localize with microtubules, possibly playing a role in cellular proliferation events. The gene encoding THEM2 maps to chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## CHROMOSOMAL LOCATION

Genetic locus: ACOT13 (human) mapping to 6p22.3; Acot13 (mouse) mapping to 13 A3.1.

## SOURCE

THEM2 (H-88) is a rabbit polyclonal antibody raised against amino acids 53-140 mapping at the C-terminus of THEM2 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.

## STORAGE

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

## APPLICATIONS

THEM2 (H-88) is recommended for detection of THEM2 of mouse, rat and 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).

THEM2 (H-88) is also recommended for detection of THEM2 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for THEM2 siRNA (h): sc-95646, THEM2 siRNA (m): sc-154253, THEM2 shRNA Plasmid (h): sc-95646-SH, THEM2 shRNA Plasmid (m): sc-154253-SH, THEM2 shRNA (h) Lentiviral Particles: sc-95646-V and THEM2 shRNA (m) Lentiviral Particles: sc-154253-V.

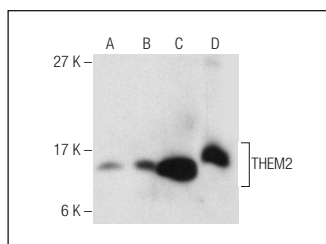
Molecular Weight of THEM2: 15 kDa.

Positive Controls: Ramos cell lysate: sc-2216, mouse liver extract: sc-2256 or Hep G2 cell lysate: sc-2227.

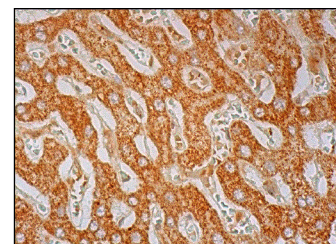
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



THEM2 (H-88): sc-135431. Western blot analysis of THEM2 expression in Hep G2 (A) and HeLa (B) whole cell lysates and mouse kidney (C) and human liver (D) tissue extracts.



THEM2 (H-88): sc-135431. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Satisfaction  
Guaranteed

Try **THEM2 (B-12): sc-373696** or **THEM2 (F-3): sc-514392**, our highly recommended monoclonal alternatives to THEM2 (H-88).