

# TRH-DE (K-15): sc-83176



The Power to Question

## BACKGROUND

TRH-DE (thyrotropin-releasing hormone degrading enzyme), also known as PAP-II or PGPEP2, is a 1,024 amino acid single-pass type II membrane protein that belongs to the peptidase M1 family and is expressed predominately in brain. Existing as a disulfide-linked homodimer, TRH-DE uses zinc as a cofactor to catalyze the cleavage and subsequent inactivation of TRH. Human TRH-DE shares 96% sequence identity with its rat counterpart, suggesting a conserved role between species. The gene encoding TRH-DE maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and Trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: TRHDE (human) mapping to 12q21.1; Trhde (mouse) mapping to 10 D2.

## SOURCE

TRH-DE (K-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of TRH-DE 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-83176 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TRH-DE (K-15) is recommended for detection of TRH-DE of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TRH-DE (K-15) is also recommended for detection of TRH-DE in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TRH-DE siRNA (h): sc-76728, TRH-DE siRNA (m): sc-76729, TRH-DE shRNA Plasmid (h): sc-76728-SH, TRH-DE shRNA Plasmid (m): sc-76729-SH, TRH-DE shRNA (h) Lentiviral Particles: sc-76728-V and TRH-DE shRNA (m) Lentiviral Particles: sc-76729-V.

Molecular Weight of TRH-DE: 117 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.