

# TTYH3 (S-15): sc-165834

## BACKGROUND

TTYH3 (tweety homolog 3 (*Drosophila*)), also known as hTTY3 or KIAA1691, is a 523 amino acid multi-pass membrane protein that belongs to the tweety family. Members of the tweety family of proteins function as chloride anion channels. TTYH3 is likely a large-conductance Ca<sup>2+</sup> activated chloride channel and may also function in Ca<sup>2+</sup> signal transduction. TTYH3 is inhibited by the addition of an anion permeability inhibitor, while high cytosolic Ca<sup>2+</sup> levels are required for TTYH3 activation. Localizing to cell membrane, TTYH3 is expressed in excitable tissues, including brain, heart, skeletal muscle, colon, spleen and kidney. Existing as three alternatively spliced isoforms, the gene encoding TTYH3 maps to human chromosome 7p22.2. Chromosome 7 is about 158 million bases long, encodes over 1,000 genes, and makes up about 5% of the human genome. Chromosome 7 has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

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## CHROMOSOMAL LOCATION

Genetic locus: TTYH3 (human) mapping to 7p22.2; Ttyh3 (mouse) mapping to 5 G2.

## SOURCE

TTYH3 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of TTYH3 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-165834 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TTYH3 (S-15) is recommended for detection of TTYH3 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); non cross-reactive with TTYH1 or TTYH2.

Suitable for use as control antibody for TTYH3 siRNA (h): sc-89544, TTYH3 siRNA (m): sc-154802, TTYH3 shRNA Plasmid (h): sc-89544-SH, TTYH3 shRNA Plasmid (m): sc-154802-SH, TTYH3 shRNA (h) Lentiviral Particles: sc-89544-V and TTYH3 shRNA (m) Lentiviral Particles: sc-154802-V.

Molecular Weight of TTYH3 isoforms 1/2/3: 58/54/38 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.