

# TYW4 (C-14): sc-160889

## BACKGROUND

Wybutosine, a derivative of wyosine, is a tricyclic hypermodified guanosine found in eukaryotic and archaeal tRNAs. TYW4 (tRNA-yW synthesizing protein 4), also known as PPM2 (p21WAF1/CIP1 promoter-interacting protein) or LCMT2 (leucine carboxyl methyltransferase 2), is a 686 amino acid protein belonging to the methyltransferase superfamily. A component of the wybutosine (yW) biosynthesis pathway, TYW4 may act as a S-adenosyl-L-methionine-dependent methyltransferase that catalyzes the final step of yW biosynthesis, methylation and methoxycarbonylation. TYW4 is encoded by a gene located on human chromosome 15, which houses over 700 genes and comprises nearly 3% of the human genome. Angelman syndrome, Prader-Willi syndrome, Tay-Sachs disease and Marfan syndrome are all associated with defects in chromosome 15-localized genes.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: LCMT2 (human) mapping to 15q15.3; Lcmt2 (mouse) mapping to 2 E5.

## SOURCE

TYW4 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TYW4 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-160889 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TYW4 (C-14) is recommended for detection of TYW4 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 other TYW family members.

TYW4 (C-14) is also recommended for detection of TYW4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TYW4 siRNA (h): sc-90110, TYW4 siRNA (m): sc-154830, TYW4 shRNA Plasmid (h): sc-90110-SH, TYW4 shRNA Plasmid (m): sc-154830-SH, TYW4 shRNA (h) Lentiviral Particles: sc-90110-V and TYW4 shRNA (m) Lentiviral Particles: sc-154830-V.

Molecular Weight of TYW4: 76 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.