

TRM61 (C-15): sc-107105

BACKGROUND

TRM61 (tRNA m(1)A58 methyltransferase subunit TRM61), also known as GCD14, is one of two subunits (the other being TRM6) that function as heterotetramers to comprise the tRNA m(1)A58 methyltransferase. The tRNA m(1)A58 methyltransferase plays a role in tRNA modification and is specifically responsible for the formation of 1-methyladenosine. 1-methyladenosine is a modified nucleoside found at position 58 in tRNA and is required for maintaining the stability of initiator methionine tRNA (tRNAⁱMet) which is directly involved in the initiation of protein synthesis. This implies that TRM61 is crucial for proper tRNA structure and function. Mutations in the gene encoding TRM61 which cause structural changes in the substrate-binding pocket of tRNA m(1)A58 methyltransferase can lead to instability of tRNAⁱMet.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: TRMT61A (human) mapping to 14q32.32; Trmt61a (mouse) mapping to 12 F1.

SOURCE

TRM61 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRM61 of human origin.

STORAGE

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

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-107105 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRM61 (C-15) is recommended for detection of TRM61 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other TRM family members.

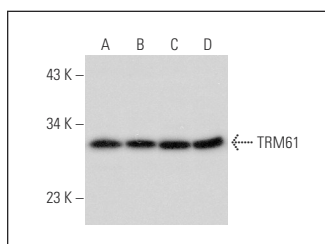
TRM61 (C-15) is also recommended for detection of TRM61 in additional species, including equine.

Suitable for use as control antibody for TRM61 siRNA (h): sc-92089, TRM61 siRNA (m): sc-154682, TRM61 shRNA Plasmid (h): sc-92089-SH, TRM61 shRNA Plasmid (m): sc-154682-SH, TRM61 shRNA (h) Lentiviral Particles: sc-92089-V and TRM61 shRNA (m) Lentiviral Particles: sc-154682-V.

Molecular Weight of TRM61: 33 kDa.

Positive Controls: SH-SY5Y cell lysate: sc-3812, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA



TRM61 (C-15): sc-107105. Western blot analysis of TRM61 expression in SH-SY5Y (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.