

QTRTD1 (m2): 293T Lysate: sc-122874

BACKGROUND

QTRTD1 (queuine tRNA-ribosyltransferase domain containing 1) is a 415 amino acid protein involved in tRNA modification and tRNA-queuosine biosynthesis. Localizing to cytoplasm, QTRTD1 also localizes to the mitochondrial outer membrane and associates with QTRT1 (queuine tRNA-ribosyltransferase domain containing 1) to form an active queuine tRNA-ribosyltransferase. At the wobble position of tRNAs with GUN anticodons, QTRTD1 exchanges queuine for guanine to form queuosine, a modified nucleoside. QTRTD1 is a member of the queuine tRNA-ribosyltransferase family, QTRTD1 subfamily and is encoded by a gene located on human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Marfan syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

REFERENCES

1. Collod, G., et al. 1994. A second locus for Marfan syndrome maps to chromosome 3p24.2-p25. *Nat. Genet.* 8: 264-268.
2. De Jonghe, P., et al. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. *J. Neurol. Neurosurg. Psychiatry* 62: 570-573.
3. Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. *Cytogenet. Cell Genet.* 87: 265-268.
4. Robinson, P.N. and Godfrey, M. 2000. The molecular genetics of Marfan syndrome and related microfibrilopathies. *J. Med. Genet.* 37: 9-25.
5. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
6. Rasmussen, A., et al. 2010. Uptake of genetic testing and long-term tumor surveillance in von Hippel-Lindau disease. *BMC Med. Genet.* 11: 4.
7. Chen, Y.C., et al. 2010. Characterization of the human tRNA-guanine transglycosylase: confirmation of the heterodimeric subunit structure. *RNA* 16: 958-968.

CHROMOSOMAL LOCATION

Genetic locus: *Qtrtd1* (mouse) mapping to 16 B4.

PRODUCT

QTRTD1 (m2): 293T Lysate represents a lysate of mouse QTRTD1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

QTRTD1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive QTRTD1 antibodies. Recommended use: 10-20 µl per lane.

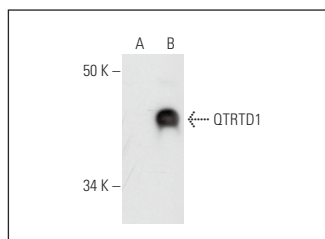
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

QTRTD1 (D-5): sc-393474 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse QTRTD1 expression in QTRTD1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

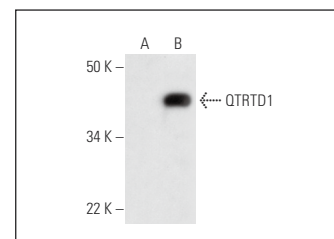
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



QTRTD1 (D-5): sc-393474. Western blot analysis of QTRTD1 expression in non-transfected: sc-117752 (A) and mouse QTRTD1 transfected: sc-122874 (B) 293T whole cell lysates.



QTRTD1 (G-5): sc-393480. Western blot analysis of QTRTD1 expression in non-transfected: sc-117752 (A) and mouse QTRTD1 transfected: sc-122874 (B) 293T whole cell lysates.

RESEARCH USE

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