SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM32 (8H8): sc-135588

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The Power to Question

BACKGROUND

Tripartite motif-containing protein 32 (TRIM32) belongs to the tripartite motif (TRIM) protein family. TRIM32, like all TRIM proteins, contains a domain structure composed of a B-box, a RING-finger and a coiled-coil motif. Additionally, TRIM32 has six C-terminal NHL domains; it is expressed mainly in the skeletal muscle. The TRIM32 gene encodes an E3 ubiquitin ligase, a protein that attaches ubiquitin to a lysine residue on a target protein and acts in conjunction with ubiquitin-conjugating enzymes UbcH5a, UbcH5c and UbcH6. Mutations in the TRIM32 gene cause two forms of autosomal recessive muscular dystrophy designated limb girdle muscular dystrophy type 2H (LGMD2H) and sarcotubular myopathy (STM). TRIM32 mutations can also result in Bardet-Biedl syndrome (BBS), an autosomal recessive disorder characterized by pigmentary retinopathy, polydactyly, hypogenitalism, renal abnormalities, learning disabilities and obesity.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602290. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Horn, E.J., et al. 2004. RING protein TRIM32 associated with skin carcinogenesis has anti-apoptotic and E3-ubiquitin ligase properties. Carcinogenesis 25: 157-167.
3. Frosk, P., et al. 2005. Hutterite brothers both affected with two forms of limb girdle muscular dystrophy: LGMD2H and LGMD2I. Eur. J. Hum. Genet. 13: 978-982.
4. Schoser, B.G., et al. 2005. Commonality of TRIM32 mutation in causing sarcotubular myopathy and LGMD2H. Ann. Neurol. 57: 591-595.
5. Guglieri, M., et al. 2005. Molecular etiopathogenesis of limb girdle muscular and congenital muscular dystrophies: boundaries and contiguities. Clin. Chim. Acta 361: 54-79.
6. Kudryashova, E., et al. 2005. TRIM32 is a ubiquitin ligase mutated in limb girdle muscular dystrophy type 2H that binds to skeletal muscle myosin and ubiquitinates Actin. J. Mol. Biol. 354: 413-424.
7. Chiang, A.P., et al. 2006. Homozygosity mapping with SNP arrays identifies TRIM32, an E3 ubiquitin ligase, as a Bardet-Biedl syndrome gene (BBS11). Proc. Natl. Acad. Sci. USA 103: 6287-6292.

CHROMOSOMAL LOCATION

Genetic locus: TRIM32 (human) mapping to 9q33.1.

SOURCE

TRIM32 (8H8) is a mouse monoclonal antibody raised against recombinant TRIM32 protein of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TRIM32 (8H8) is recommended for detection of TRIM32 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRIM32 siRNA (h): sc-61714, TRIM32 shRNA Plasmid (h): sc-61714-SH and TRIM32 shRNA (h) Lentiviral Particles: sc-61714-V.

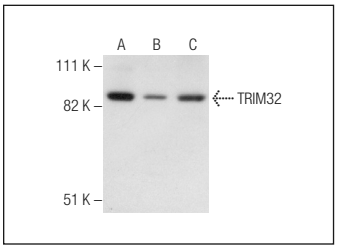
Molecular Weight of TRIM32: 72 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, PC-3 cell lysate: sc-2220 or MOLT-4 cell lysate: sc-2233.

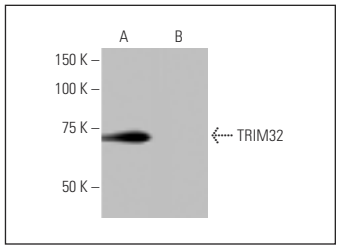
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



TRIM32 (8H8): sc-135588. Western blot analysis of TRIM32 expression in HeLa (**A**), PC-3 (**B**) and MOLT-4 (**C**) whole cell lysates.



TRIM32 (8H8): sc-135588. Western blot analysis of TRIM32 expression in human TRIM32 transfected (**A**) and non-transfected (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chen, F., et al. 2020. TRIM32 triggers β-catenin signaling through ubiquitylation of Axin1 to promote inflammatory factor-induced apoptosis of rat nucleus pulposus cells. Am. J. Physiol., Cell Physiol. 318: C695-C703.

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 for detailed protocols and support products.