Torsin2A (L-15): sc-324444



The Power to Question

BACKGROUND

Torsin2A, also known as TOR2A or TORP1, is a 321 amino acid secreted protein that belongs to the clpA/clpB family and Torsin subfamily. Four alternatively spliced isoforms exist for Torsin2A, designated isoforms 1, 2, 3 and 3. Isoform 1 is ubiquitously expressed, with the exception of cardiac and endothelial tissues. Torsin2A is thought to be related to the AAA chaperone-like family of ATPases. Members of this family play a role in the assembly, disassembly and operation of a variety of protein complexes, confer increased tolerance to high temperature and promote specific proteolysis. The gene encoding Torsin2A maps to human chromosome 9q34.11 and mouse chromosome 2 B. Chromosome 9 consists of about 145 million bases and 4% of the human genome, encoding nearly 900 genes.

REFERENCES

- Augood, S.J., Martin, D.M., Ozelius, L.J., Breakefield, X.O., Penney, J.B. and Standaert, D.G. 1999. Distribution of the mRNAs encoding torsinA and torsinB in the normal adult human brain. Ann. Neurol. 46: 761-769.
- Clark, H.F., Gurney, A.L., Abaya, E., Baker, K., Baldwin, D., Brush, J., Chen, J., Chow, B., Chui, C., Crowley, C., Currell, B., Deuel, B., Dowd, P., Eaton, D., Foster, J., Grimaldi, C., Gu, Q., Hass, P.E., Heldens, S., Huang, A., Kim, H.S., Klimowski, L., Jin, Y., Johnson, S., Lee, J., Lewis, L., et al. 2003. The secreted protein discovery initiative (SPDI), a large-scale effort to identify novel human secreted and transmembrane proteins: a bioinformatics assessment. Genome Res. 13: 2265-2270.
- 3. Oberlin, S.R., Konakova, M., Pulst, S. and Chesselet, M.F. 2004. Development and anatomic localization of torsinA. Adv. Neurol. 94: 61-65.
- Snider, J. and Houry, W.A. 2006. MoxR AAA+ ATPases: a novel family of molecular chaperones? J. Struct. Biol. 156: 200-209.
- 5. Sato, K., Fujimoto, K., Koyama, T. and Shichiri, M. 2010. Release of salusin-β from human monocytes/macrophages. Regul. Pept. 162: 68-72.
- 6. Ozgen, M., Koca, S.S., Dagli, N., Balin, M., Ustundag, B. and Isik, A. 2011. Serum salusin- α level in rheumatoid arthritis. Regul. Pept. 167: 125-128.

CHROMOSOMAL LOCATION

Genetic locus: TOR2A (human) mapping to 9q34.11; Tor2a (mouse) mapping to 2 B.

SOURCE

Torsin2A (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Torsin2A of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-324444 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Torsin2A (L-15) is recommended for detection of Torsin2A 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 TorsinA, Torsin3A or TorsinB.

Torsin2A (L-15) is also recommended for detection of Torsin2A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Torsin2A siRNA (h): sc-92871, Torsin2A siRNA (m): sc-154557, Torsin2A shRNA Plasmid (h): sc-92871-SH, Torsin2A shRNA Plasmid (m): sc-154557-SH, Torsin2A shRNA (h) Lentiviral Particles: sc-92871-V and Torsin2A shRNA (m) Lentiviral Particles: sc-154557-V.

Molecular Weight of Torsin2A: 36 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.

PROTOCOLS

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

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