SANTA CRUZ BIOTECHNOLOGY, INC.

Lingo-3 (F-16): sc-247444

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The Power to Question

BACKGROUND

Lingo-3 (leucine-rich repeat and immunoglobulin-like domain-containing nogo receptor-interacting protein 3), also known as LERN2 (leucine-rich repeat neuronal protein 2) or LRRN6B, is a 592 amino acid single-pass type I membrane protein. Lingo-3 contains one immunoglobulin-like C2-type domain and fourteen leucine-rich repeats and is glycosylated at various positions during post-translational modification. Lingo-3 is expressed in a broad but specific pattern in many tissues across the embryo. The gene encoding Lingo-3 maps to to human chromosome 19p13.3 and mouse chromosome 10 C1. Chromosome 19 consists of approximately 63 million bases and makes up over 2% of human genomic DNA. Chromosome 19 is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin superfamily members including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family and Fcα receptors.

REFERENCES

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2. Moodie, S.J., et al. 2002. Analysis of candidate genes on chromosome 19 in coeliac disease: an association study of the KIR and LILR gene clusters. Eur. J. Immunogenet. 29: 287-291.
3. Carim-Todd, L., et al. 2003. LRRN6A/LERN1 (leucine-rich repeat neuronal protein 1), a novel gene with enriched expression in limbic system and neocortex. Eur. J. Neurosci. 18: 3167-3182.
4. Grimwood, J., et al. 2004. The DNA sequence and biology of human chromosome 19. Nature 428: 529-535.
5. Trifunovski, A., et al. 2004. Neuronal activity-induced regulation of Lingo-1. Neuroreport 15: 2397-2400.
6. Haines, B.P. and Rigby, P.W. 2008. Expression of the Lingo/LERN gene family during mouse embryogenesis. Gene Expr. Patterns 8: 79-86.
7. Vilariño-Güell, C., et al. 2010. LINGO1 and LINGO2 variants are associated with essential tremor and Parkinson disease. Neurogenetics 11: 401-408.

CHROMOSOMAL LOCATION

Genetic locus: LINGO3 (human) mapping to 19p13.3; Lingo3 (mouse) mapping to 10 C1.

SOURCE

Lingo-3 (F-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Lingo-3 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-247444 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lingo-3 (F-16) is recommended for detection of Lingo-3 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 Lingo-1, Lingo-2 or Lingo-4.

Lingo-3 (F-16) is also recommended for detection of Lingo-3 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Lingo-3 siRNA (m): sc-146736, Lingo-3 shRNA Plasmid (m): sc-146736-SH and Lingo-3 shRNA (m) Lentiviral Particles: sc-146736-V.

Molecular Weight of Lingo-3: 65 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 or our catalog for detailed protocols and support products.