

ELMSAN1 (B-10): sc-514710

BACKGROUND

ELMSAN1 (ELM2 and SANT domain-containing protein 1), also known as LSR68, MIDEAS or C14orf43, is a 1,045 amino acid nuclear protein that contains one ELM2 domain and a SANT domain. ELMSAN1 is part of a deacetylase complex that contains TdIF1 and HDAC1. The gene encoding ELMSAN1 maps to human chromosome 14q24.3. Chromosome 14 encodes the presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is located on chromosome 14 and when defective leads to the genetic disorder α 1-antitrypsin deficiency. This disorder is characterized by severe lung complications and liver dysfunction. Notably, the immunoglobulin heavy chain locus is found on chromosome 14 and has been identified as a fusion with the chromosome 19 encoded protein Bcl-3 in the (14;19) translocations found in a variety of B cell malignancies.

REFERENCES

1. Godbolt, A.K., et al. 2004. A presenilin 1 R278I mutation presenting with language impairment. *Neurology* 63: 1702-1704.
2. Stolk, J., et al. 2006. α 1-antitrypsin deficiency: current perspective on research, diagnosis, and management. *Int. J. Chron. Obstruct. Pulmon. Dis.* 1: 151-160.
3. Vetrivel, K.S., et al. 2006. Pathological and physiological functions of presenilins. *Mol. Neurodegener.* 1: 4.

CHROMOSOMAL LOCATION

Genetic locus: ELMSAN1 (human) mapping to 14q24.3; Elmsan1 (mouse) mapping to 12 D1.

SOURCE

ELMSAN1 (B-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 631-657 within an internal region of C14orf43 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ELMSAN1 (B-10) is available conjugated to agarose (sc-514710 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514710 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514710 PE), fluorescein (sc-514710 FITC), Alexa Fluor® 488 (sc-514710 AF488), Alexa Fluor® 546 (sc-514710 AF546), Alexa Fluor® 594 (sc-514710 AF594) or Alexa Fluor® 647 (sc-514710 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514710 AF680) or Alexa Fluor® 790 (sc-514710 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514710 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

ELMSAN1 (B-10) is recommended for detection of ELMSAN1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for ELMSAN1 siRNA (h): sc-92414, ELMSAN1 siRNA (m): sc-141825, ELMSAN1 shRNA Plasmid (h): sc-92414-SH, ELMSAN1 shRNA Plasmid (m): sc-141825-SH, ELMSAN1 shRNA (h) Lentiviral Particles: sc-92414-V and ELMSAN1 shRNA (m) Lentiviral Particles: sc-141825-V.

Molecular Weight of ELMSAN1: 115 kDa.

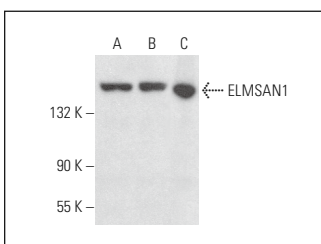
Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

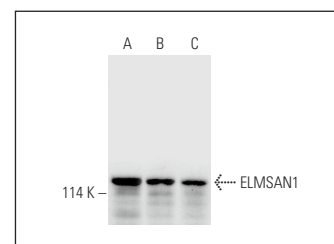
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).
- 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ELMSAN1 (B-10): sc-514710. Western blot analysis of ELMSAN1 expression in HEL 92.1.7 (A), MEG-01 (B) and NIH/3T3 (C) whole cell lysates.



ELMSAN1 (B-10): sc-514710. Western blot analysis of ELMSAN1 expression in Jurkat (A), K-562 (B) and HeLa (C) whole cell lysates.

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.