

# SYNDIG1 (C-1): sc-515627

## BACKGROUND

Synapse differentiation-inducing gene protein 1 (SYNDIG1), also known as DSPC2, IFITMD5, TMEM90B or C20orf39, is a 258 single-pass type II membrane protein that belongs to the CD225/Dispanin family. SYNDIG1 may regulate the content of the AMPA receptor at new synapses and contribute to postsynaptic development and maturation. As a homodimer, SYNDIG1 interacts with GRIA1 and GRIA2. The gene encoding TMEM90B maps to human chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome. Additionally, chromosome 20 contains a region with numerous genes which are thought to be important for seminal production and may be potential targets for male contraception.

## REFERENCES

1. Ville, D., et al. 2006. Early pattern of epilepsy in the RING chromosome 20 syndrome. *Epilepsia* 47: 543-549.
2. Joo, J.G., et al. 2006. Trisomy 20 mosaicism and nonmosaic trisomy 20: a report of 2 cases. *J. Reprod. Med.* 51: 209-212.
3. Fulbright, R.K., et al. 2006. The imaging appearance of Creutzfeldt-Jakob disease caused by the E200K mutation. *Magn. Reson. Imaging* 24: 1121-1129.
4. Lundwall, A. 2007. A locus on chromosome 20 encompassing genes that are highly expressed in the epididymis. *Asian J. Androl.* 9: 540-544.
5. Robert, M.L., et al. 2007. Alagille syndrome with deletion 20p12.2-p12.3 and hypoplastic left heart. *Clin. Dysmorphol.* 16: 241-246.
6. Elghezal, H., et al. 2007. RING chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4—KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.

## CHROMOSOMAL LOCATION

Genetic locus: SYNDIG1 (human) mapping to 20p11.21.

## SOURCE

SYNDIG1 (C-1) is a mouse monoclonal antibody raised against amino acids 77-150 mapping within an internal region of SYNDIG1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SYNDIG1 (C-1) is available conjugated to agarose (sc-515627 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515627 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515627 PE), fluorescein (sc-515627 FITC), Alexa Fluor® 488 (sc-515627 AF488), Alexa Fluor® 546 (sc-515627 AF546), Alexa Fluor® 594 (sc-515627 AF594) or Alexa Fluor® 647 (sc-515627 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515627 AF680) or Alexa Fluor® 790 (sc-515627 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

SYNDIG1 (C-1) is recommended for detection of SYNDIG1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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 SYNDIG1 siRNA (h): sc-72734, SYNDIG1 shRNA Plasmid (h): sc-72734-SH and SYNDIG1 shRNA (h) Lentiviral Particles: sc-72734-V.

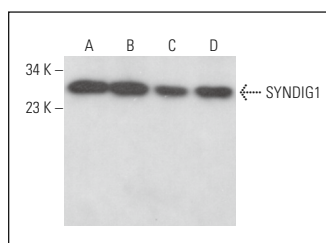
Molecular Weight of SYNDIG1: 29 kDa.

Positive Controls: SYNDIG1 (h): 293T Lysate: sc-370595, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

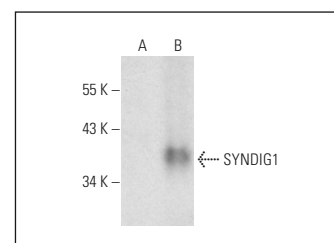
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ 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



SYNDIG1 (C-1): sc-515627. Western blot analysis of SYNDIG1 expression in HeLa (A), Jurkat (B), K-562 (C) and HL-60 (D) whole cell lysates.



SYNDIG1 (C-1): sc-515627. Western blot analysis of SYNDIG1 expression in non-transfected: sc-117752 (A) and human SYNDIG1 transfected: sc-370595 (B) 293T 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](http://www.scbt.com) for detailed protocols and support products.

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