

NPRL2 (H-8): sc-166969

BACKGROUND

NPRL2, also known as TUSC4 (tumor suppressor candidate 4), is a 380 amino acid protein that contains a bipartite nuclear localization signal and a granulin protein-binding domain. It is highly expressed in skeletal muscle, followed by brain, liver and pancreas, with lower expression in lung, kidney, placenta and heart. NPRL2 is also expressed in most lung cancer cell lines and may be involved in tumor suppression. NPRL2 may play a role in mismatch repair, cell cycle checkpoint signaling and activation of apoptotic pathways. It may also enhance the therapeutic efficacy of chemotherapy drugs such as cisplatin by resensitizing patients resistant to cisplatin treatment. The gene encoding NPRL2 is conserved between species and is expressed as two isoforms due to alternative splicing events.

REFERENCES

- Lerman, M.I. and Minna, J.D. 2000. The 630 kb lung cancer homozygous deletion region on human chromosome 3p21.3: identification and evaluation of the resident candidate tumor suppressor genes. The international lung cancer chromosome 3p21.3 tumor suppressor gene consortium. *Cancer Res.* 60: 6116-6133.
- Ji, L., et al. 2002. Expression of several genes in the human chromosome 3p21.3 homozygous deletion region by an adenovirus vector results in tumor suppressor activities *in vitro* and *in vivo*. *Cancer Res.* 62: 2715-2720.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607072. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Li, J., et al. 2004. Functional characterization of the candidate tumor suppressor gene NPRL2/G21 located in 3p21.31. *Cancer Res.* 64: 6438-6443.
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CHROMOSOMAL LOCATION

Genetic locus: NPRL2 (human) mapping to 3p21.31; Nprl2 (mouse) mapping to 9 F1.

SOURCE

NPRL2 (H-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 325-355 near the C-terminus of NPRL2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-166969 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

NPRL2 (H-8) is recommended for detection of NPRL2 of mouse, rat and 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 NPRL2 siRNA (h): sc-62699, NPRL2 siRNA (m): sc-62700, NPRL2 shRNA Plasmid (h): sc-62699-SH, NPRL2 shRNA Plasmid (m): sc-62700-SH, NPRL2 shRNA (h) Lentiviral Particles: sc-62699-V and NPRL2 shRNA (m) Lentiviral Particles: sc-62700-V.

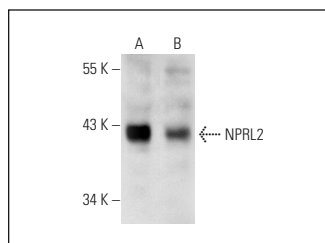
Molecular Weight of NPRL2: 44 kDa.

Positive Controls: NPRL2 (h): 293T Lysate: sc-116608, MIA PaCa-2 cell lysate: sc-2285 or SK-MEL-28 cell lysate: sc-2236.

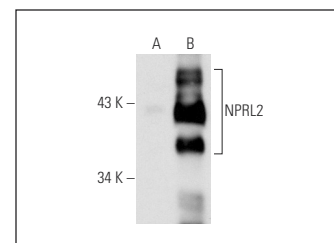
RECOMMENDED SUPPORT REAGENTS

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



NPRL2 (H-8): sc-166969. Western blot analysis of NPRL2 expression in SK-MEL-28 (A) and MIA PaCa-2 (B) whole cell lysates.



NPRL2 (H-8): sc-166969. Western blot analysis of NPRL2 expression in non-transfected: sc-117752 (A) and human NPRL2 transfected: sc-116608 (B) 293T whole cell lysates.

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.