



NPRL2 (h2): 293T Lysate: sc-372771

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 *cis*-platin 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

1. 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.
2. 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.
3. 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/>
4. Li, J., et al. 2004. Functional characterization of the candidate tumor suppressor gene NPRL2/G21 located in 3p21.3C. *Cancer Res.* 64: 6438-6443.
5. Yi Lo, P.H., et al. 2006. Expression of candidate chromosome 3p21.3 tumor suppressor genes and down-regulation of BLU in some esophageal squamous cell carcinomas. *Cancer Lett.* 234: 184-192.
6. Ueda, K., et al. 2006. The 3p21.3 tumor suppressor NPRL2 plays an important role in cisplatin-induced resistance in human non-small-cell lung cancer cells. *Cancer Res.* 66: 9682-9690.

CHROMOSOMAL LOCATION

Genetic locus: NPRL2 (human) mapping to 3p21.31.

PRODUCT

NPRL2 (h2): 293T Lysate represents a lysate of human NPRL2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

NPRL2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive NPRL2 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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