

Reprimo (S-11): sc-136832

BACKGROUND

Reprimo, also known as TP53 dependent G₂ arrest mediator candidate or RPRM, is a 109 amino acid cytoplasmic protein belonging to the Reprimo family, which is involved in the regulation of p53-dependent G₂ arrest of the cell cycle. Reprimo may initiate cell cycle arrest by inhibiting CDC2 and nuclear translocation of the CDC2 cyclin B1 complex. A highly glycosylated protein, Reprimo also plays a role in cell cycle surveillance and DNA repair. Hypermethylation of Reprimo can lead to its transcriptional repression, which may increase pathogenesis of some types of human cancers. Reprimo has been identified as a potential biomarker for early detection multiple cancers. The gene encoding Reprimo maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome.

REFERENCES

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- Ye, Z. and Parry, J.M. 2002. Identification of polymorphisms in the human Reprimo gene using public EST data. *Teratog., Carcinog. Mutagen.* 22: 485-493.
- Sato, N., et al. 2003. Discovery of novel targets for aberrant methylation in pancreatic carcinoma using high-throughput microarrays. *Cancer Res.* 63: 3735-3742.
- Takahashi, T., et al. 2005. Aberrant methylation of Reprimo in human malignancies. *Int. J. Cancer* 115: 503-510.
- Sato, N., et al. 2006. Aberrant methylation of Reprimo correlates with genetic instability and predicts poor prognosis in pancreatic ductal adenocarcinoma. *Cancer* 107: 251-257.
- Hamilton, J.P., et al. 2006. Reprimo methylation is a potential biomarker of Barrett's-associated esophageal neoplastic progression. *Clin. Cancer Res.* 12: 6637-6642.
- Bernal, C., et al. 2008. Reprimo as a potential biomarker for early detection in gastric cancer. *Clin. Cancer Res.* 14: 6264-6269.

CHROMOSOMAL LOCATION

Genetic locus: RPRM (human) mapping to 2q23.3; Rprm (mouse) mapping to 2 C1.1.

SOURCE

Reprimo (S-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Reprimo of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136832 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Reprimo (S-11) is recommended for detection of Reprimo of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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), immunohistochemistry (including paraffin-embedded sections) (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 Reprimo siRNA (h): sc-94986, Reprimo siRNA (m): sc-152806, Reprimo shRNA Plasmid (h): sc-94986-SH, Reprimo shRNA Plasmid (m): sc-152806-SH, Reprimo shRNA (h) Lentiviral Particles: sc-94986-V and Reprimo shRNA (m) Lentiviral Particles: sc-152806-V.

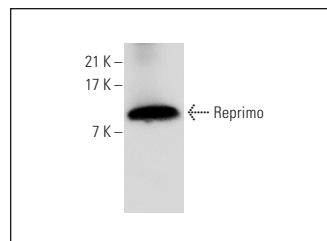
Molecular Weight of Reprimo: 12 kDa.

Positive Controls: human lung extract: sc-363767.

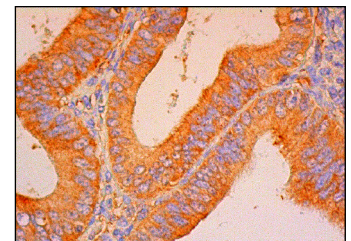
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Reprimo (S-11): sc-136832. Western blot analysis of Reprimo expression in human lung tissue extract.



Reprimo (S-11): sc-136832. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pre-menopausal uterus tissue showing cytoplasmic staining of glandular cells.

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.