

# RAI3 (M-120): sc-98885

## BACKGROUND

Retinoic acid-induced protein 3 (RAI3) is a transmembrane G protein-coupled receptor that affects many essential biological processes including embryogenesis, cell growth, differentiation and apoptosis. RAI3 may also be involved in maintaining homeostasis of epithelial cells. Retinoic acid receptors directly regulate RAI3 during its transcription in embryonal carcinoma differentiation. RAI3 expression is upregulated in most tumor cell lines that express mutant p53, suggesting that p53 interacts with the promoter of RAI3 and represses its expression at the beginning of apoptosis. RAI3 is a potential molecular target for diagnosing breast cancer; selective suppression of signals from RAI3 may have a place in breast cancer treatments.

## REFERENCES

- Cheng, Y. and Lotan, R. 1999. Molecular cloning and characterization of a novel retinoic acid-inducible gene that encodes a putative G protein-coupled receptor. *J. Biol. Chem.* 273: 35008-35015.
- Bräuner-Osborne, H. and Krogsgaard-Larsen, P. 2000. Sequence and expression pattern of a novel human orphan G protein-coupled receptor, GPRC5B, a family C receptor with a short amino-terminal domain. *Genomics* 65: 121-128.
- Robbins, M.J., Michalovich, D., Hill, J., Calver, A.R., Medhurst, A.D., Gloger, I., Sims, M., Middlemiss, D.N. and Pangalos, M.N. 2000. Molecular cloning and characterization of two novel retinoic acid-inducible orphan G protein-coupled receptors (GPRC5B and GPRC5C). *Genomics* 67: 8-18.
- Hofmann, W.K., de Vos, S., Komor, M., Hoelzer, D., Wachsman, W. and Koeffler, H.P. 2002. Characterization of gene expression of CD34<sup>+</sup> cells from normal and myelodysplastic bone marrow. *Blood* 100: 3553-3560.
- Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604138. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Tao, Q., Cheng, Y., Clifford, J. and Lotan, R. 2004. Characterization of the murine orphan G protein-coupled receptor gene RAI3 and its regulation by retinoic acid. *Genomics* 83: 270-280.

## CHROMOSOMAL LOCATION

Genetic locus: GPRC5A (human) mapping to 12p13.1; Gprc5a (mouse) mapping to 6 G1.

## SOURCE

RAI3 (M-120) is a rabbit polyclonal antibody raised against amino acids 237-356 mapping at the C-terminus of RAI3 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

RAI3 (M-120) is recommended for detection of RAI3 of mouse, rat and, to a lesser extent, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

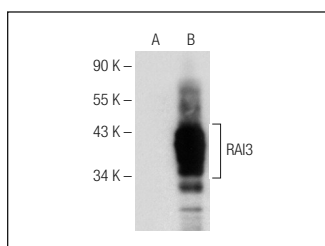
Suitable for use as control antibody for RAI3 siRNA (h): sc-61440, RAI3 siRNA (m): sc-61441, RAI3 shRNA Plasmid (h): sc-61440-SH, RAI3 shRNA Plasmid (m): sc-61441-SH, RAI3 shRNA (h) Lentiviral Particles: sc-61440-V and RAI3 shRNA (m) Lentiviral Particles: sc-61441-V.

Molecular Weight of RAI3: 32 kDa.

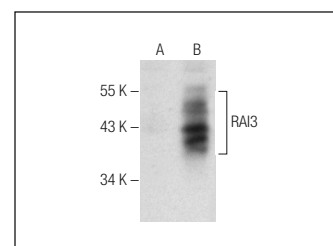
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## DATA



RAI3 (M-120): sc-98885. Western blot analysis of RAI3 expression in non-transfected (A) and human RAI3 transfected (B) HEK293T whole cell lysates.



RAI3 (M-120): sc-98885. Western blot analysis of RAI3 expression in non-transfected: sc-117752 (A) and human RAI3 transfected: sc-158912 (B) 293T whole cell lysates.

## RESEARCH USE

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

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Try **RAI3 (A-11): sc-390263** or **RAI3 (G-6): sc-373825**, our highly recommended monoclonal alternatives to RAI3 (M-120).