

# ARHI (C-12): sc-30323

## BACKGROUND

ARHI (Ras homologue member I) is a maternally imprinted tumor suppressor gene that encodes a GTP-binding protein with high homology to Ras and Rap. ARHI and Ras share similar GTP/GDP binding domains, but exert opposite functions. Unlike Ras, an oncogene, ARHI is a tumor suppressor in the Ras superfamily. ARHI is present in normal ovarian and breast epithelial cells but not in ovarian and breast cancers. The human ARHI gene maps to a site on chromosome 1p31 where loss of heterozygosity is characteristic to 40% of human breast and ovarian cancers.

## REFERENCES

1. Yu, Y., Xu, F., Peng, H., Fang, X., Zhao, S., Li, Y., Cuevas, B., Kuo, W.L., Gray, J.W., Siciliano, M., Mills, G.B., Bast, R.C. 1999. NOEY2 (ARHI), an imprinted putative tumor suppressor gene in ovarian and breast carcinomas. *Proc. Natl. Acad. Sci. USA* 96: 214-219.
2. Yu, Y., Fujii, S., Yuan, J., Luo, R.Z., Wang, L., Bao, J., Kadota, M., Oshimura, M., Dent, S.R., Issa, J.P., Bast, R.C. 2003. Epigenetic regulation of ARHI in breast and ovarian cancer cells. *Ann. N.Y. Acad. Sci.* 983: 268-277.
3. Yuan, J., Luo, R.Z., Fujii, S., Wang, L., Hu, W., Andreeff, M., Pan, Y., Kadota, M., Oshimura, M., Sahin, A.A., Issa, J.P., Bast, R.C., Jr., Yu, Y. 2003. Aberrant methylation and silencing of ARHI, an imprinted tumor suppressor gene in which the function is lost in breast cancers. *Cancer Res.* 63: 4174-4180.
4. Luo, R.Z., Fang, X., Marquez, R., Liu, S.Y., Mills, G.B., Liao, W.S., Yu, Y., Bast, R.C. 2003. ARHI is a Ras-related small G protein with a novel N-terminal extension that inhibits growth of ovarian and breast cancers. *Oncogene* 22:2897-2909.

## CHROMOSOMAL LOCATION

Genetic locus: DIRAS3 (human) mapping to 1p31.

## SOURCE

ARHI (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ARHI of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-30323 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

ARHI (C-12) is recommended for detection of ARHI of 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 ARHI siRNA (h): sc-43621, ARHI shRNA Plasmid (h): sc-43621-SH and ARHI shRNA (h) Lentiviral Particles: sc-43621-V.

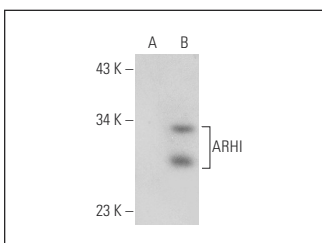
Molecular Weight of ARHI: 26 kDa.

Positive Controls: ARHI (h): 293T Lysate: sc-159875.

## 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.

## DATA



ARHI (C-12): sc-30323. Western blot analysis of ARHI expression in non-transfected: sc-117752 (A) and human ARHI transfected: sc-159875 (B) 293T whole cell lysates.

## RESEARCH USE

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