# SANTA CRUZ BIOTECHNOLOGY, INC.

# ARHI (N-17): sc-30321



# 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

- 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.
- 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.
- 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.
- 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 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ARHI of human origin.

# PRODUCT

Each vial contains 200  $\mu$ g lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30321 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 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 or our catalog for detailed protocols and support products.

#### APPLICATIONS

ARHI (N-17) is recommended for detection of ARHI of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

### **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) Immunofluo-rescence: use donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

# **RESEARCH USE**

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