10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DIRAS3 Antibody

Catalog # ASC11908

Product Information

Application	WB, E
Primary Accession	O95661
Other Accession	NP_004666, 4757772
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	25861
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	DIRAS3 antibody can be used for detection of DIRAS3 by Western blot at 1 - 2 g/ml.

Additional Information

Gene ID	9077
Other Names	GTP-binding protein Di-Ras3, Distinct subgroup of the Ras family member 3, Rho-related GTP-binding protein RhoI, DIRAS3, ARHI, NOEY2, RHOI
Target/Specificity	DIRAS3; DIRAS3 antibody is human specific.
Reconstitution & Storage	DIRAS3 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	DIRAS3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DIRAS3
Synonyms	ARHI, NOEY2, RHOI
Cellular Location	Cell membrane; Lipid-anchor; Cytoplasmic side
Tissue Location	Expressed in normal ovarian and breast epithelial cells but not in ovarian and breast cancers

Background

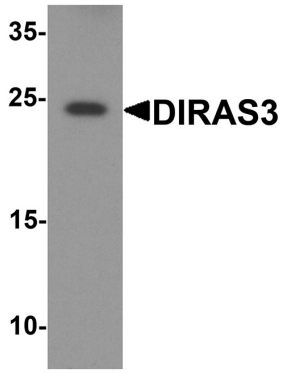
DIRAS3 is a member of the ras superfamily, and is expressed in normal ovarian and breast epithelial cells,

but not in ovarian and breast cancers. It is an imprinted gene, with mono-allelic expression of the paternal allele, which is associated with growth suppression and down-regulation of cyclin D1 promoter activity and induction of p21 (WAF/CIP1). Thus, this gene appears to be a putative tumor suppressor gene whose function is abrogated in ovarian and breast cancers (1). DIRAS3 has been shown to induce autophagy in human ovarian cancer cells by blocking PI3K signaling, inhibiting the mammalian target of rapamycin (TOR), upregulating ATG4, and colocalizing with LC3 in autophagosomes (2). DIRAS also interacts with C-RAF and downregulates mitogen-activated protein kinase kinases (MEK) to restrict cell migration (3).

References

Yu Y, Xu F, Peng H, et al. NOEY2 (ARHI), an imprinted putative tumor suppressor gene in ovarian and breast carcinomas. Proc. Natl. Acad. Sci. USA 1999; 96:214-9.
Lu Z, Luo RZ, Lu Y, et al. The tumor suppressor gene ARHI regulates autophagy and tumor dormancy in human ovarian cancer cells. J. Clin. Invest. 2008; 118:3917-29.
Klingauf M, Beck M, Berge U, et al. The tumour suppressor DiRas3 interacts with C-RAF and downregulates MEK activity to restrict cell migration. Biol. Cell 2013; 105:91-107.

Images



Western blot analysis of DIRAS3 in human testis tissue lysate with DIRAS3 antibody at 1 µg/ml.