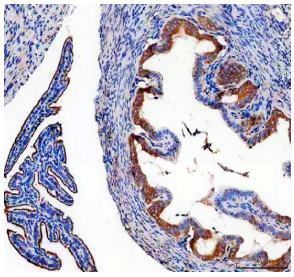
DIRAS3 Antibody / GTP-binding protein Di-Ras3 Antibody (FY13588)

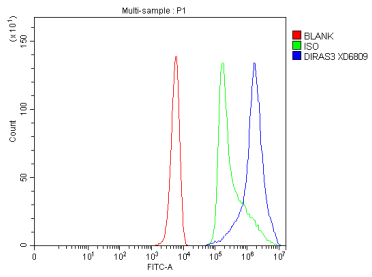
Catalog No.	Formulation	Size
FY13588	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

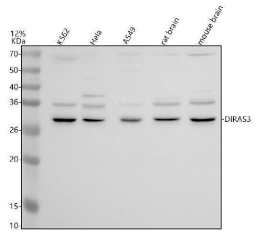
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O95661
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5 ug/ml
Limitations	This DIRAS3 Antibody / GTP-binding protein Di-Ras3 Antibody is intended for research use only.



DIRAS3 Antibody by IHC in mouse fallopian tube. Immunohistochemistry of formalin-fixed, paraffin-embedded mouse fallopian tube using GTP-binding protein Di-Ras3 Antibody shows prominent brown staining along portions of the luminal epithelial lining, with blue nuclear counterstaining. Heat-induced antigen retrieval was performed in EDTA buffer at pH 8.0, followed by blocking with 10% goat serum. Sections were incubated with primary antibody at 2 ug/mL overnight at 4oC. HRP-conjugated secondary antibody and DAB chromogen generated brown immunoreactivity, with hematoxylin counterstaining highlighting nuclei.



DIRAS3 Antibody by FACS in K562 cells. Flow cytometry analysis using GTP-binding protein Di-Ras3 Antibody shows a rightward shift of the antibody-stained population (blue) relative to the rabbit IgG isotype control (green) and unstained blank (red). K562 cells were fixed with 4% paraformaldehyde. Primary antibody was applied at 1 ug per 1 x 10^6 cells for 30 minutes at 20oC, followed by a fluorescent anti-rabbit IgG secondary antibody. The histogram demonstrates detectable antibody-associated fluorescence under these assay conditions.



DIRAS3 Antibody by WB in human cell lines and rodent brain. Western blot analysis using GTP-binding protein Di-Ras3 Antibody detects a prominent band near 30 kDa, compared with the calculated molecular weight of approximately 26 kDa. Lanes 1-3 contain K562, HeLa and A549 whole-cell lysates; lanes 4 and 5 contain rat and mouse brain tissue lysates. Reduced lysates containing 30 ug total protein per lane were separated by 12% SDS-PAGE and transferred to nitrocellulose. After blocking with 5% nonfat milk, the membrane was incubated with primary antibody at 0.5 ug/mL overnight at 4oC. Detection employed an HRP-conjugated anti-rabbit secondary antibody and chemiluminescent substrate.

Description

DIRAS3 Antibody / GTP-binding protein Di-Ras3 Antibody detects DIRAS3, also known as ARHI or NOEY2, an imprinted member of the Ras-related small GTPase family. Like other small GTP-binding proteins, DIRAS3 contains structural elements associated with nucleotide binding and regulatory signaling. However, its biological effects differ from those of classical oncogenic RAS proteins. DIRAS3 has been characterized as a growth-inhibitory protein in several cellular models and has attracted interest because of its unusual genomic imprinting and expression pattern.

Genomic imprinting results in unequal expression of maternal and paternal gene copies through epigenetic regulation. DIRAS3 is generally expressed from the paternal allele, making its expression sensitive to changes in methylation and other regulatory mechanisms. Reduced DIRAS3 expression has been reported in several tumor types, including ovarian and breast cancers. Experimental restoration of DIRAS3 can suppress proliferation and alter intracellular signaling, although the magnitude and downstream effects depend on the cellular background. Its roles have also been connected to the regulation of autophagy and cellular dormancy. The GTP-binding protein Di-Ras3 Antibody name refers to this same gene product.

Autophagy enables cells to recycle intracellular components through lysosomal degradation. In certain cancer models, DIRAS3 expression has been associated with induction of autophagic processes and the persistence of dormant tumor cells under restrictive conditions. These observations complicate a simple description of DIRAS3 as exclusively protective or inhibitory, because cellular dormancy can have different implications from irreversible cell death. Its regulation also intersects with pathways controlling growth-factor responses and cellular metabolism. NSJ Bioreagents includes DIRAS3 among targets relevant to small GTPase signaling and epigenetically regulated growth control. A DIRAS3 Antibody provides a way to investigate the molecular biology associated with this protein.

Explore related research targets in our Signal Transduction Antibodies for Cell Signaling and Regulatory Pathway Research collection.

Application Notes

The appropriate working dilution of the DIRAS3 Antibody / GTP-binding protein Di-Ras3 Antibody should be optimized by the end user.

Immunogen

The DIRAS3 Antibody was generated using e. coli-derived human ARHI/DIRAS3 recombinant protein (amino acids R27-M229).

Storage

After reconstitution, the DIRAS3 Antibody may be stored at 4oC for up to one month. For longer storage, aliquot and freeze at -20oC for up to six months. Avoid repeated freezing and thawing.

Alternate Names

DIRAS3 antibody, GTP-binding protein Di-Ras3 antibody, DIRAS family GTPase 3 antibody, ARHI antibody, GTP binding

protein Di Ras3 antibody, NOEY2 antibody, RHOI antibody

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