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HRAS Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7764C

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P01112
Other Accession	P20171, Q61411
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	21298
Antigen Region	104-128

Additional Information

Gene ID	3265
Other Names	GTPase HRas, H-Ras-1, Ha-Ras, Transforming protein p21, c-H-ras, p21ras, GTPase HRas, N-terminally processed, HRAS, HRAS1
Target/Specificity	This HRAS antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 104-128 amino acids from the Central region of human HRAS.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	HRAS Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	HRAS
Synonyms	HRAS1

Function	Signal transducer in the Ras-MAPK signaling pathway that regulates cell proliferation and survival (PubMed:22821884). Ras proteins bind GDP/GTP and possess intrinsic GTPase activity (PubMed:12740440, PubMed:14500341, PubMed:9020151). Recognized by LZTR1 that mediates its ubiquitination by a BCR (BTB-CUL3-RBX1) E3 ubiquitin- protein ligase complex (PubMed:40934300).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:P20171}; Lipid-anchor; Cytoplasmic side. Golgi apparatus. Golgi apparatus membrane; Lipid-anchor. Note=The active GTP-bound form is localized most strongly to membranes than the inactive GDP-bound form (By similarity). Shuttles between the plasma membrane and the Golgi apparatus.
Tissue Location	Widely expressed..

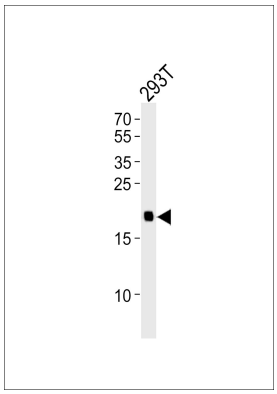
Background

HRAS belongs to the Ras oncogene family, whose members are related to the transforming genes of mammalian sarcoma retroviruses. These proteins function in signal transduction pathways. They can bind GTP and GDP, and they have intrinsic GTPase activity. HRAS undergoes a continuous cycle of de- and re-palmitoylation, which regulates its rapid exchange between the plasma membrane and the Golgi apparatus. Mutations in this gene cause Costello syndrome, a disease characterized by increased growth at the prenatal stage, growth deficiency at the postnatal stage, predisposition to tumor formation, mental retardation, skin and musculoskeletal abnormalities, distinctive facial appearance and cardiovascular abnormalities. Defects in the HRAS gene are implicated in a variety of cancers, including bladder cancer, follicular thyroid cancer, and oral squamous cell carcinoma.

References

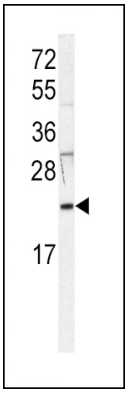
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Coats,S.G., Biochemistry 38 (39), 12926-12934 (1999)
Sakai,E., Int. J. Cancer 52 (6), 867-872 (1992)

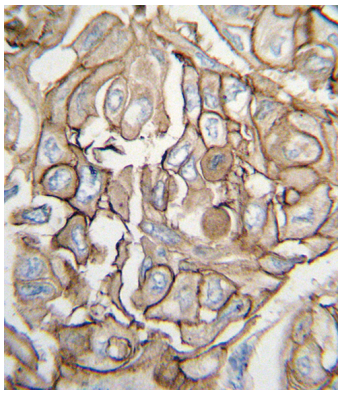
Images



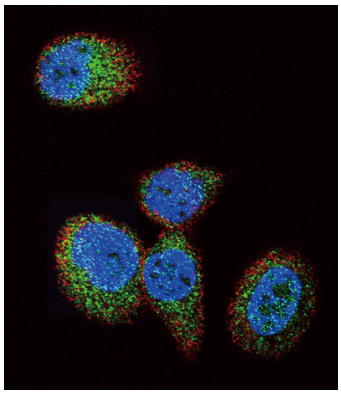
Western blot analysis of lysate from 293T cell line, using HRAS Antibody (Center)(Cat. #AP7764c). AP7764c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysate at 20ug.

Western blot analysis of anti-HRAS Antibody (Center) (Cat.#AP7764c) in Jurkat cell line lysates (35ug/lane). HRAS (arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human lung carcinoma tissue reacted with HRAS antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of HRAS Antibody (Center)(Cat#AP7764c) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

Citations

- LINC00623/miR-101/HRAS axis modulates IL-1β-mediated ECM degradation, apoptosis and senescence of osteoarthritis chondrocytes
- Mutational analysis of HRAS and KRAS genes in oral carcinoma cell lines.
- p66(Shc) restrains Ras hyperactivation and suppresses metastatic behavior.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.