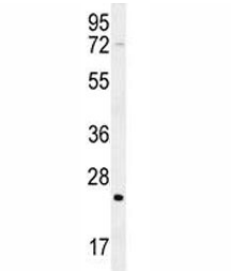
H-RAS Antibody / Harvey Ras Protein Antibody (F41616)

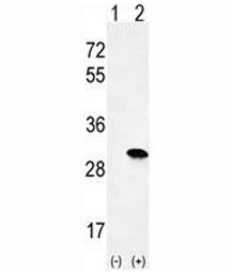
Catalog No.	Formulation	Size
F41616-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F41616-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

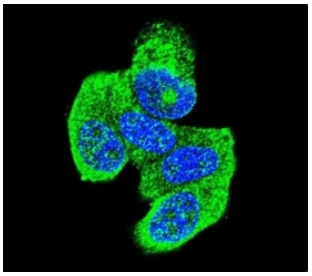
Species Reactivity	Human, Mouse
Predicted Reactivity	Rat, Chicken
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P01112
RRID	AB_3754318
Applications	Western blot: 1:1000 Immunofluorescence: 1:10-1:50
Limitations	This H-RAS Antibody / Harvey Ras Protein Antibody is available for research use only.



H-RAS Antibody in Mouse Cerebellum WB. Western blot testing of mouse cerebellum tissue lysate with H-RAS Antibody / Harvey Ras Protein Antibody. A specific band is detected near the predicted molecular weight of approximately 21 kDa. This H-RAS Antibody demonstrates detection of Harvey Ras protein in mouse cerebellum tissue.



H-RAS Antibody in HRAS-Transfected Human 293 Cells WB. Western blot testing of H-RAS Antibody / Harvey Ras Protein Antibody using human 293 cell lysates. Lane 1 contains nontransfected cells and lane 2 contains cells transiently transfected with the HRAS gene. A strong H-RAS band is detected in the HRAS-transfected lysate and is absent from the nontransfected control. This H-RAS Antibody demonstrates specific detection of HRAS protein expressed in transfected human 293 cells.



H-RAS Antibody in Human MCF-7 Breast Cancer Cells IF. Immunofluorescence staining of human MCF-7 breast cancer cells with H-RAS Antibody / Harvey Ras Protein Antibody followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Nuclei were counterstained with DAPI (blue), and cells were visualized by confocal fluorescence microscopy. H-RAS staining is observed predominantly throughout the cytoplasmic region of the cells. This H-RAS Antibody enables visualization of Harvey Ras protein expression and localization in human breast cancer cells.

Description

H-RAS Antibody / Harvey Ras Protein Antibody targets HRAS, a member of the RAS family of small GTP-binding proteins that also includes KRAS and NRAS. H-RAS functions as a molecular switch that transmits signals from activated cell-surface receptors to intracellular pathways controlling proliferation, differentiation, survival and other cellular responses. The protein alternates between an inactive GDP-bound state and an active GTP-bound state, allowing RAS signaling to be rapidly regulated in response to extracellular stimuli.

H-RAS is associated with the inner surface of the plasma membrane through post-translational modification of its C-terminal region. Following activation of receptor tyrosine kinases and other upstream signaling systems, guanine nucleotide exchange factors promote formation of GTP-bound H-RAS. Active H-RAS can then interact with downstream effectors such as RAF kinases, initiating the RAF-MEK-ERK signaling cascade. H-RAS also communicates with PI3K and additional effector proteins, linking this small GTPase to multiple pathways involved in cellular growth, metabolism and survival.

The HRAS gene was named for its relationship to the transforming gene of the Harvey rat sarcoma virus and was among the earliest oncogenes identified in studies of malignant transformation. Activating mutations can impair normal regulation of the H-RAS GTPase cycle and maintain the protein in a signaling-active state. Persistent RAS pathway activity can promote uncontrolled proliferation and other features of cellular transformation. Somatic HRAS mutations have been studied in bladder, thyroid, head and neck, and several other cancers, making H-RAS an important target in cancer signaling research.

Germline HRAS variants are also associated with Costello syndrome, a developmental condition within the RASopathy group. The involvement of H-RAS in both developmental disorders and cancer illustrates the importance of tightly controlled RAS activity. A H-RAS Antibody can support studies examining H-RAS expression, localization and regulation in the context of normal signaling and disease-associated RAS pathway activity.

NSJ Bioreagents provides antibodies for research into oncogenic signaling, cell growth and RAS pathway biology. A Harvey Ras Protein Antibody can be useful for investigating H-RAS expression in studies of RAS/MAPK signaling, cancer biology, growth factor responses and related mechanisms of signal transduction.

For broader research into HRAS function, RAS/MAPK signaling and oncogenic pathway regulation, see our HRAS Antibody page.

Application Notes

Titration of the H-RAS Antibody / Harvey Ras Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 146-176 from the human protein was used as the immunogen for this H-RAS antibody.

Storage

Aliquot the H-RAS antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

H-RAS antibody, Harvey Ras protein antibody, HRAS antibody, HRAS1 antibody, transforming protein p21 antibody, Ras p21 antibody

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