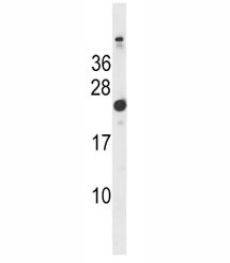
HRAS1 Antibody / Transforming Protein p21 Antibody (F47429)

Catalog No.	Formulation	Size
F47429-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F47429-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Predicted Reactivity	Human, Rat, Chicken
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	Q61411
Applications	Western blot: 1:1000
Limitations	This HRAS1 Antibody / Transforming Protein p21 Antibody is available for research use only.



HRAS1 Antibody in Mouse Bladder WB. Western blot testing of mouse bladder tissue lysate with HRAS1 Antibody / Transforming Protein p21 Antibody. A specific band is detected near the predicted molecular weight of approximately 21 kDa. This HRAS1 Antibody demonstrates detection of Transforming Protein p21 in mouse bladder tissue.

Description

HRAS1 Antibody / Transforming Protein p21 Antibody targets HRAS, a member of the RAS family of small GTP-binding proteins that also includes KRAS and NRAS. HRAS1 is a historical designation for the HRAS gene, which encodes the H-RAS protein. 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 cycles between an inactive GDP-bound state and an active GTP-bound state, enabling tightly regulated transmission of

extracellular signals.

H-RAS associates with the inner surface of the plasma membrane and can be activated downstream of receptor tyrosine kinases and other signaling systems. Guanine nucleotide exchange factors promote the formation of GTP-bound H-RAS, which interacts with downstream effectors including RAF kinases. This interaction activates the RAF-MEK-ERK signaling cascade, while additional H-RAS effectors connect the protein to PI3K-AKT and other regulatory pathways. A HRAS1 Antibody can therefore support studies of RAS signaling and the mechanisms through which growth factor signals influence cellular behavior.

HRAS has an important historical connection to cancer research. The gene was identified through its relationship to the transforming gene of the Harvey rat sarcoma virus and became one of the earliest characterized human proto-oncogenes. The H-RAS protein has consequently also been referred to as transforming protein p21 or Ras p21. Activating mutations can disrupt the normal GTPase cycle and maintain HRAS in an active signaling state, resulting in persistent stimulation of pathways that promote cell growth and transformation.

Somatic HRAS mutations have been investigated in multiple malignancies, including bladder, thyroid, and head and neck cancers. Germline HRAS variants are also associated with Costello syndrome, demonstrating the importance of regulated RAS signaling during development. Research into HRAS1 and transforming protein p21 can provide insight into both normal signal transduction and disease-associated alterations in RAS pathway activity.

NSJ Bioreagents provides antibodies for research into RAS signaling, oncogenic pathways and cellular growth regulation. A Transforming Protein p21 Antibody targeting HRAS can support studies of H-RAS expression, RAS/MAPK signaling, cancer biology 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 HRAS1 Antibody / Transforming Protein p21 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 151-179 from the mouse protein was used as the immunogen for this HRAS1 Antibody.

Storage

Aliquot the HRAS1 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

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

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