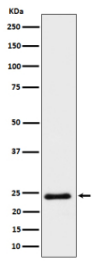
MRAS Antibody / Ras-related protein M-Ras [clone 29M72] (FY12803)

Catalog No.	Formulation	Size
FY12803	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29M72
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	O14807
Applications	Western Blot : 1:500-1:2000
Limitations	This MRAS antibody is available for research use only.



Western blot analysis of Mras expression in human HeLa cell lysate using MRAS antibody. Predicted molecular weight ~24 kDa.

Description

MRAS antibody detects Ras related protein M Ras, encoded by the MRAS gene. This protein is also called muscle Ras oncogene homolog, R Ras3, and M Ras. MRAS belongs to the Ras superfamily of small GTP binding proteins, which function as molecular switches in signal transduction. Like other Ras family members, MRAS cycles between an inactive GDP bound form and an active GTP bound form, relaying signals from cell surface receptors to downstream effectors that control proliferation, differentiation, and survival.

MRAS antibody is widely applied in cancer research, developmental biology, and signaling studies. MRAS differs from classical Ras proteins in sequence and regulation, giving it distinct functions. It interacts with SHOC2 and PP1c in a complex that regulates MAPK pathway activation. MRAS also contributes to neuronal differentiation, cardiac development, and vascular biology. By detecting MRAS, researchers can investigate how this atypical Ras family protein integrates signaling across tissues.

Applications of MRAS antibody include western blotting, immunohistochemistry, and immunofluorescence. Western blotting detects MRAS expression in cell lysates, immunohistochemistry maps its expression in tissues such as brain and heart, and immunofluorescence highlights subcellular localization at the plasma membrane and endomembranes. These methods provide powerful tools for exploring MRAS biology in normal and disease contexts.

Mutations in MRAS are rare compared to KRAS or HRAS, but dysregulated expression has been linked to cancer. MRAS activity supports cell proliferation and transformation in lung, gastric, and hematologic malignancies. It also modulates epithelial mesenchymal transition and cell migration. By applying MRAS antibody, scientists can evaluate MRAS as a potential biomarker and therapeutic target.

In cardiovascular biology, MRAS regulates vascular smooth muscle cell signaling and contributes to cardiac morphogenesis. Its expression in neuronal tissues links it to axonal guidance and synaptic plasticity. MRAS is also involved in T cell receptor signaling, suggesting roles in adaptive immunity. The antibody therefore supports research across multiple physiological systems.

Therapeutically, targeting MRAS signaling is under investigation, particularly its cooperation with SHOC2 in Ras MAPK activation. Detection of MRAS with antibody based assays provides biomarkers for drug development and pathway modulation. MRAS antibody from NSJ Bioreagents provides reliable specificity and performance, supporting accurate detection of this Ras related protein in both basic and applied research.

Application Notes

Optimal dilution of the MRAS antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human Mras was used as the immunogen for the MRAS antibody.

Storage

Store the MRAS antibody at -20oC.