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MRas Rabbit pAb

Catalog # AP98260

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O14807
Other Accession	O14807
Predicted	Rat, Human, Mouse, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23846
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MRAS
Epitope Specificity	105-208/208
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the small GTPase superfamily. Ras family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MRas is a member of the RAS superfamily of GTP-binding proteins which are membrane-anchored, intracellular signal transducers responsible for a variety of normal cellular functions. They are oncogenically activated in a significant fraction of tumors. MRas participates in reorganisation of actin cytoskeleton. It is also involved in focal adhesion and can activate MAPK signalling.

Additional Information

Gene ID	22808
Other Names	M-RAs; NS11; R-RAS3; RRAS3; 2900078C09Rik; RASM_HUMAN; MRAS; Ras-related protein R-Ras3; 3.6.5.2; RASM_MOUSE; Muscle and microspikes Ras; X-Ras; Xras; RASM_RAT; muscle RAS oncogene homolog
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	MRAS
Synonyms	RRAS3

Function	Signal transducer in the Ras-MAPK signaling pathway that regulates cell proliferation and survival (PubMed:16630891, PubMed:28289718, PubMed:35768504, PubMed:35830882, PubMed:35831509, PubMed:36175670). Core component of the SHOC2-MRAS-PP1c (SMP) holophosphatase complex that regulates the MAPK pathway activation (PubMed:16630891, PubMed:35768504, PubMed:35830882, PubMed:35831509, PubMed:36175670). The formation of the SMP complex only occurs when MRAS is GTP-bound (PubMed:35768504, PubMed:35830882, PubMed:35831509, PubMed:36175670, PubMed:39809765). Unlike other Ras proteins, MRAS has low intrinsic GTPase activity and may require additional factors for activation (PubMed:39809765). The SMP complex specifically dephosphorylates the inhibitory phosphorylation at 'Ser-259' of RAF1 kinase, 'Ser-365' of BRAF kinase and 'Ser-214' of ARAF kinase, stimulating their kinase activities (PubMed:16630891, PubMed:35768504, PubMed:35830882, PubMed:35831509, PubMed:36175670). Recognized by LZTR1 that mediates its ubiquitination by a BCR (BTB-CUL3-RBX1) E3 ubiquitin- protein ligase complex (PubMed:40934300).
Cellular Location	Cell membrane; Lipid-anchor; Cytoplasmic side
Tissue Location	Expression highly restricted to the brain and heart

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