RAC2 Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	RAC2, Blocking Peptide
Full Product Name	RAC2 Antibody (C-term) Blocking Peptide
Product Gene Name	RAC2 blocking peptide
Product Synonym Names	Ras-related C3 botulinum toxin substrate 2; GX; Small G protein; p21-Rac2; RAC2
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human RAC2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	RAC2 peptide (MBS9227878) is used for blocking the activity of RAC2 antibody (MBS9205173)
Molecular Weight	21,429 Da
OMIM	602049
Cellular Location	Cytoplasm. Note: Membrane-associated when activated
Tissue Location	Hematopoietic specific.
Related Product Information for RAC2 blocking peptide	Plasma membrane-associated small GTPase which cycles between an active GTP-bound and inactive GDP-bound state. In active state binds to a variety of effector proteins to regulate cellular responses, such as secretory processes, phagocytose of apoptotic cells and epithelial cell polarization. Augments the production of reactive oxygen species (ROS) by NADPH oxidase.
Other Notes	Small volumes of RAC2 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for RAC2 purchase	MBS9227878 is a blocking peptide targeting RAC2. Also known as RAC2 Antibody (C-term) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for RAC2. It may not necessarily be applicable to this product.

NCBI GI #	131806
NCBI GeneID	5880
NCBI Accession #	P15153.1
UniProt Primary Accession #	P15153
UniProt Secondary Accession #	Q9UDJ4
UniProt Related Accession #	P15153; AAB22207
NCBI Official Full Name	Ras-related C3 botulinum toxin substrate 2
NCBI Official Synonym Full Names	ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2)
NCBI Official Symbol	RAC2

NCBI Official Synonym Symbols	Gx; EN-7; HSPC022; p21-Rac2
UniProt Protein Name	Ras-related C3 botulinum toxin substrate 2
UniProt Synonym Protein Names	GX; Small G protein; p21-Rac2
Protein Family	Rac-like GTP-binding protein
UniProt Gene Name	RAC2
UniProt Entry Name	RAC2_HUMAN
NCBI Protein Information	ras-related C3 botulinum toxin substrate 2
NCBI Summary for RAC2	This gene encodes a member of the Ras superfamily of small guanosine triphosphate (GTP)-metabolizing proteins. The encoded protein localizes to the plasma membrane, where it regulates diverse processes, such as secretion, phagocytosis, and cell polarization. Activity of this protein is also involved in the generation of reactive oxygen species. Mutations in this gene are associated with neutrophil immunodeficiency syndrome. There is a pseudogene for this gene on chromosome 6. [provided by RefSeq, Jul 2013]
UniProt Comments for RAC2	RAC2: Plasma membrane-associated small GTPase which cycles between an active GTP-bound and inactive GDP-bound state. In active state binds to a variety of effector proteins to regulate cellular responses, such as secretory processes, phagocytose of apoptotic cells and epithelial cell polarization. Augments the production of reactive oxygen species (ROS) by NADPH oxidase. Interacts with DOCK2, which may activate it. Hematopoietic specific. Regulated by guanine nucleotide exchange factors (GEFs) which promote the exchange of bound GDP for free GTP, GTPase activating proteins (GAPs) which increase the GTP hydrolysis activity, and GDP dissociation inhibitors which inhibit the dissociation of the nucleotide from the GTPase. Belongs to the small GTPase superfamily. Rho family. Protein type: G protein, monomeric, Rho; Motility/polarity/chemotaxis; G protein, monomeric; G protein Chromosomal Location of Human Ortholog: 22q13.1 Cellular Component: actin filament; cytosol; focal adhesion; lamellipodium; phagocytic vesicle membrane; plasma membrane Molecular Function: GTP binding Biological Process: actin filament organization; platelet activation; regulation of hydrogen peroxide metabolic process; regulation of small GTPase mediated signal transduction; signal transduction Disease: Neutrophil Immunodeficiency Syndrome
Research Articles on RAC2	**1.** RAC2 specifically interacted with a set of mitochondrial proteins.
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