PREX2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PREX2, Polyclonal Antibody
Full Product Name	PREX2 Antibody, HRP conjugated
Product Gene Name	anti-PREX2 antibody
Product Synonym Names	Phosphatidylinositol 3; 4; 5-trisphosphate-dependent Rac exchanger 2 proteinP-Rex2PtdIns(3; 4; 5)-dependent Rac exchanger 2; DEP domain-containing protein 2; PREX2; DEPDC2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: PREX2 (MBS7050465) HRP Conjugated Antibody: PREX2 (MBS7050466)
Molecular Weight	112,404 Da
OMIM	AJ437636 mRNA
3D Structure	ModBase 3D Structure for Q70Z35
Immunogen	Recombinant human Phosphatidylinositol 3, 4, 5-trisphosphate-dependent Rac exchanger 2 protein (1417-1592AA)
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, PH 7.4
Conjugation	HRP
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PREX2 antibody	ELISA (EIA)
Related Product Information for anti-PREX2 antibody	Functions as a RAC1 guanine nucleotide exchange factor (GEF), activating Rac proteins by exchanging bound GDP for free GTP. Its activity is synergistically activated by phosphatidylinositol 3, 4, 5-trisphosphate and the beta gamma subunits of heterotrimeric G protein. Mediates the activation of RAC1 in a PI3K-dependent manner. May be an important mediator of Rac signaling, acting directly downstream of both G protein-coupled receptors and phosphoinositide 3-kinase.
Other Notes	Small volumes of anti-PREX2 antibody 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 PREX2 purchase	MBS7050466 is an antibody targeting PREX2. Also known as PREX2 Antibody, HRP conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PREX2. It may not necessarily be applicable to this product.

NCBI GI #	47578115
NCBI GeneID	80243
NCBI Accession #	NP_079146.2
UniProt Primary Accession #	Q70Z35
UniProt Secondary Accession #	Q32KL0; Q32KL1; Q6R7Q3; Q6R7Q4; Q9H805; Q9H961; B4DFX0
UniProt Related Accession #	Q70Z35
GenBank Nucleotide #	NM_024870.3
NCBI Official Full Name	phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein isoform a
NCBI Official Synonym Full Names	phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 2
NCBI Official Symbol	PREX2
NCBI Official Synonym Symbols	DEP.2; DEPDC2; P-REX2; PPP1R129
UniProt Protein Name	Phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
UniProt Synonym Protein Names	DEP domain-containing protein 2
Protein Family	Phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
UniProt Gene Name	PREX2
UniProt Synonym Gene Names	DEPDC2; P-Rex2; PtdIns(3,4,5)-dependent Rac exchanger 2
UniProt Entry Name	PREX2_HUMAN
NCBI Protein Information	phosphatidylinositol 3,4,5-trisphosphate-dependent Rac exchanger 2 protein
NCBI Summary for PREX2	The protein encoded by this gene belongs to the phosphatidylinositol 3,4,5-trisphosphate (PIP3)-dependent Rac exchanger (PREX) family, which are Dbl-type guanine-nucleotide exchange factors for Rac family small G proteins. Structural domains of this protein include the catalytic diffuse B-cell lymphoma homology and pleckstrin homology (DHPH) domain, two disheveled, EGL-10, and pleckstrin homology (DEP) domains, two PDZ domains, and a C-terminal inositol polyphosphate-4 phosphatase (IP4P) domain that is found in one of the isoforms. This protein facilitates the exchange of GDP for GTP on Rac1, allowing the GTP-bound Rac1 to activate downstream effectors. Studies also show that the pleckstrin homology domain of this protein interacts with the phosphatase and tensin homolog (PTEN) gene product to inhibit PTEN phosphatase activity, thus activating the phosphoinositide-3 kinase (PI3K) signaling pathway. Conversely, the PTEN gene product has also been shown to inhibit the GEF activity of this protein. This gene plays a role in insulin-signaling pathways, and either mutations or overexpression of this gene have been observed in some cancers. [provided by RefSeq, Apr 2016]
UniProt Comments for PREX2	PREX2: Functions as a RAC1 guanine nucleotide exchange factor (GEF), activating Rac proteins by exchanging bound GDP for free GTP. Its activity is synergistically activated by phosphatidylinositol 3,4,5-trisphosphate and the beta gamma subunits of heterotrimeric G protein. Mediates the activation of RAC1 in a PI3K-dependent manner. May be an important mediator of Rac signaling, acting directly downstream of both G protein- coupled receptors and phosphoinositide 3-kinase. 3 isoforms of the human protein are produced by alternative splicing. Protein type: GEFs; GEFs, Rac/Rho; Phosphatase, regulatory subunit Chromosomal Location of Human Ortholog: 8q13.2 Cellular Component: cytoplasm; plasma membrane Molecular Function: GTPase activator activity; Rac guanyl-nucleotide exchange factor activity Biological Process: G-protein coupled receptor protein signaling pathway; negative regulation of protein kinase activity; negative regulation of TOR signaling pathway
Research Articles on PREX2	**1.** knockdown of PREX2a may effectively inhibit the malignant phenotype of glioma.

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