

Recombinant Full Length Human PREX2 Protein, C-Flag-tagged

Cat. No. PREX2-1930HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant Full Length Human PREX2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.

Species

Human

Source

Mammalian Cells

Description

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.

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Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	182.4 kDa
AA Sequence	MSEDSRGDSRAESAKDLEKQLRLRVCVLSELQKTERDYVGTLEFLVSAFLHRMNQC AASKVDKNVTEETV KMLFSNIEDILAVHKEFLKVVEECLHPEPNAQQEVGTCFLHFK DKFRIYDEYCSNHEKAQKLLLELNKIR TIRTFLLNCMLLGGRKNTDVPLEGYLVTPIQ RICKYPLILKELLKRTPRKHSYAAVMEALQAMKAVCSN INEAKRQMEKLEVLEEWQ SHIEGWEGSNITDTCTEMLMCGVLLKISSGNIQERVFFLFDNLLVYCKRKHR RLKNS KASTDGHRYLFRGRINTEVMEVENVDDGTADFHSSGHIVVNGWKIHNTAKNKWFVC MAKTPEEKH EWFEAILKERERRKGLKLGMEQDTWVMISEQGEKLYKMMCRQGNLI KDRKRKLTTFPKCFLGSEFVSWLL EIGEHRPEEGVHLGQALLENGIIHHVTDKHQFK PEQMLYRFRYDDGTFYPRNEMQDVISKGVRLYCR LH SLFTPVIRDKDYHLRTYKSV VMANKLIDWLIAQGD CRTREEAMIFGVGLCDNGFMHHVLEKSEFKDEPLL FRFFSD EEMEGSNMKHRLMKHDLKVVENVIAKSLLIKSNEGSYGFGLEDKNKVPIIKLVEKGSN AEMAGM EVGKKIFAINGDLVFM RPFNEVDCFLK SCLNSRKPLRVLVSTKPRETVKIP DSADGLGFQIRGFGPSVVH AVGRGTVAAAAGLHPGQCIKVNGINVSKETHASVIAH VTACRKYRRPTKQDSIQWVYNSIESAQEDLQK SHSKPPGDEAGDAFDCKVEEVIDK FNTMAIIDGKKEHVSLTVDNVHLEYGVVYEYDSTAGIKCNVVEKMI EPKGFFSLTAKI LEALAKSDEHFVQNCTSLNSLNEVIPTDLQSKFSALC SERIEHLCQRISYKFKFSRVL KNRAWPTFKQAKSKISPLHSSDFCPTNCHVNVMEVSYPKTSTSLGSAFGVQLDSRK HNSHDKENKSSEQG KLSPMVYIQHTITMAAPSGLSLGQQDGHGLRYLLKEEDLET QDIYQKLLGKLQTALKEVEMCVCQIDDL LSSITYSPKLERKTSEGIPTDSDNEKGER NSKRVC FNVAGDEQEDSGHDTISNRDSYSDCNSNRNSIAS FTSICSSQCSSYFHSD EMDSGDELPLSVRISHDKQDKIHSCLEHLFSQVDSITNLLKGQAVVRAFDQTKY LTP GRGLQEFQQEMEPKLSCPKRLRLHIKQDPWNLPSSVRTLAQNIRKFVEEVKCRLLLA LLEYS DSETQ LRRDMVFCQTLVATVCAFSEQLMAALNQMFDSKENEMETWEASR RWLDQIANAGVLFHFQSLSPNLTD EQAMLEDTLVALFDLEKVSFYFKPSEEEPLVA NVPLTYQAEGSRQALKVYFYIDSYHFEQLPQRLKNGGG FKIHPVLFAQALESMEGY YYRDNVSVEEFQAQINAASLEKVKQYNQKLRAFYLDKSNSPPNSTSKAAYVD KLMR

PLNALDELYRLVASFIRSKRTAACANTACSASGVGLLSVSSELCNRLGACHIIMCSSG
VHRCTLSV TLEQAILARSHGLPPRYIMQATDVMRKQGARGVQNTAKNLGVRDRTPQ
SAPRLYKLCEPPPPAGEE TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Full Length	Full L.

GENE INFORMATION

Gene Name	PREX2 phosphatidylinositol-3,4,5-trisphosphate dependent Rac exchange factor 2 [Homo sapiens (human)]
Official Symbol	PREX2
Synonyms	DEP.2; DEPDC2; P-REX2; PPP1R129
Gene ID	80243
mRNA Refseq	NM_024870.4

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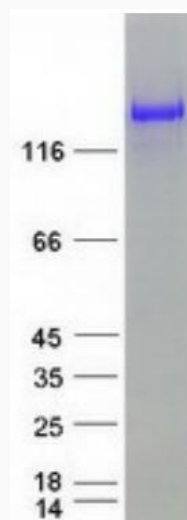
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Protein Refseq NP_079146.2

MIM 612139

UniProt ID Q70Z35



Coomassie blue staining of purified PREX2 protein.

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