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Product datasheet for PH323671

PREX2 (NM_024870) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	PREX2 MS Standard C13 and N15-labeled recombinant protein (NP_079146)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC223671
Predicted MW:	182.4 kDa
Protein Sequence:	>RC223671 representing NM_024870 Red=Cloning site Green=Tags(s) MSEDSRGDSRAESAKDLEKQLRLRVCVLSELQKTERDYVGTLEFLVSAFLHRMNQCAASKVDKNVTEETV KMLFSNIEDILAVHKEFLKVVEECLHPEPNAQQEVGTCFLHFKDKFRIYDEYCSNHEKAQKLLLELNKIR TIRTFLLNCMLLGGRKNTDVPLEGYLVTPIQRICKYPLILKELLKRTPRKHSDYAAVMEALQAMKAVCSN INEAKRQMEKLEVLEEWQSHIEGWEGSNITDTCTEMLMCGVLLKISSGNIQERVFFLFDNLLVYCKRKHR RLKNSKASTDGHRYLFRGRINTEVMEVENVDDGTADFHSSGHIVVNGWKIHNTAKNKWFVCMAKTPEEKH EWFEAILKERERRKGLKLGMEQDTWVMISEQGEKLYKMMCRQGNLIKDRKRKLTTFPKCFLGSEFVSWLL EIGEIHRPEEGVHLGQALLENGIIHHVTDKHQFKPEQMLYRFRYDDGTFYPRNEMQDVISKGVRLYCRLH SLFTPVIRDKDYHLRTYKSVVMANKLIDWLIAQGDCRTREEAMIFGVGLCDNGFMHHVLEKSEFKDEPLL FRFFSDEEMEGSNMKHRLMKHDLKVVENVIAKSLLIKSNEGSYGFGLEDKNKVPIIKLVEKGSNAEMAGM EVGKKIFAINGDLVFMRPFNEVDCFLKSCLNSRKPLRVLVSTKPRETVKIPDSADGLGFQIRGFGPSVVH AVGRGTVAAAAGLHPGQCIIKVNGINVSKETHASVIAHVTACRKYRRPTKQDSIQWVYNSIESAQEDLQK SHSKPPGDEAGDAFDCKVEEVIDKFNTMAIIDGKKEHVSLTVDNVHLEYGVVYEYDSTAGIKCNVVEKMI EPKGFFSLTAKILEALAKSDEHFVQNCTSLNSLNEVIPTDLQSKFSALCSERIEHLCQRISSYKKFSRVL KNRAWPTFKQAKSKISPLHSSDFCPTNCHVNVMEVSYPKTSTSLGSAFGVQLDSRKHNSHDKENKSSEQG KLSPMVYIQHTITTMAAPSGLSLGQQDGHGLRYLLKEEDLETQDIYQKLLGKLQTALKEVEMCVCQIDDL LSSITYSPKLERKTSEGIIPTDSDNEKGERNSKRVCFNVAGDEQEDSGHDTISNRDSYSDCNSNRNSIAS FTSICSSQCSSYFHSDEMDSGDELPLSVRISHDKQDKIHSCLEHLFSQVDSITNLLKGQAVVRAFDQTKY LTPGRGLQEFQQEMEPKLSCPKRLRLHIKQDPWNLPSSVRTLAQNIRKFVEEVKCRLLLALLEYSDSETQ LRRDMVFCQTLVATVCAFSEQLMAALNQMFDNSKENEMETWEASRRWLDQIANAGVLFHFQSLLSPNLTD EQAMLEDTLVALFDLEKVSFYFKPSEEEPLVANVPLTYQAEGSRQALKVYFYIDSYHFEQLPQRLKNGGG FKIHPVLFAQALESMEGYYYRDNVSVEEFQAQINAASLEKVKQYNQKLRAFYLDKSNSPPNSTSKAAYVD KLMRPLNALDELYRLVASFIRSKRTAACANTACSASGVGLLSVSSELCNRLGACHIIMCSSGVHRCTLSV TLEQAIILARSHGLPPRYIMQATDVMRKQGARVQNTAKNLGVRDRTPQSAPRLYKLCEPPPPAGEE TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK

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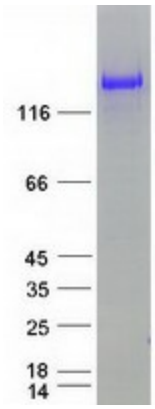
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	NP_079146
RefSeq Size:	5132
RefSeq ORF:	4818
Synonyms:	DEP.2; DEPDC2; P-REX2; PPP1R129
Locus ID:	80243
UniProt ID:	Q70Z35
Cytogenetics:	8q13.2
Summary:	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]

Product images:



Coomassie blue staining of purified PREX2 protein (Cat# [TP323671]). The protein was produced from HEK293T cells transfected with PREX2 cDNA clone (Cat# [RC223671]) using MegaTran 2.0 (Cat# [TT210002]).