

## Product datasheet for **TP323671M**

### **PREX2 (NM\_024870) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Purified recombinant protein of Homo sapiens phosphatidylinositol-3,4,5-trisphosphate-dependent Rac exchange factor 2 (PREX2), transcript variant 1, 100 µg
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293T



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**Expression cDNA Clone** >RC223671 representing NM\_024870  
**or AA Sequence:** Red=Cloning site Green=Tags(s)

MSEDSRGDSRAESAKDLEKQLRLRVCVLSSELQKTERDYVGTLEFLVSAFLHRMNQCAASKVDKNVTEETV  
 KMLFSNIEDILAVHKEFLKVVEECLHPEPNAQQEVGTCFLHFKDKFRIYDEYCSNHEKAQKLLLELNKIR  
 TIRTFLLNCMLLGGRKNTDVPLEGYLVTPRIQRICKYPLILKELLKRTPRKHSDYAAVMEALQAMKAVCSN  
 INEAKRQMEKLEVLLEWQSHIEGWEGSNITDTCTEMLMCGVLLKISSGNIQERVFFLFDNLLVYCKRKHR  
 RLKNSKASTDGHRYLFRGRINTEVMEVENVDDGTADFHSSGHIVVNGWKIHNHTAKNKWFVCMMAKTPEEKH  
 EWFEAILKERERRKGLKLGMEQDTWVMISEQGEKLYKMMCRQGNLIKDRKRKLTTFPKCFLGSEFVSWLL  
 EIGEHRPEEGVHLGQALLENGLIHHVTDKHQFKPEQMLYRFYDDGTFYPRNEMQDVISKGVRLYCRLH  
 SLFTPVIRDKDYHLRTYKSVVMANKLIDWLIAQGDCTREEAMIFGVGLCDNGFMHHVLEKSEFKDEPLL  
 FRFFSDEEMEGSNMKHRLMKHDLKVVENVIAKSLIKSNEGSYGFGLKEDKNKVPKILVEKGSNAEMAGM  
 EVGKKIFAINGDLVFMRFNEVDCFLKSLNSRKPLRVLVSTKPRETVKIPDSADGLGFQIRGFGPSVWH  
 AVGRGTAAAAAGLHPGQCIIKVNGINVSKETHASVIAHVACRKYRPTKQDSIQWVYNSIESAQEDLQK  
 SHSKPPGDEAGDAFDCKVEEVIDKFNTMAIIDGKKEHVSLTVDNVHLEYGVVYDYDSTAGIKCNVVEKMI  
 EPKGFSLTAKILEALAKSDEHFVNCTSLNSLNEVIPTDLQSKFSALCSERIEHLCQRISYKFKFSRVL  
 KNRAWPTFKQAKSKISPLHSSDFCPTNCHVNVMEVSYPKTSTSLGSAFGVQLDSRKHNSHDKENKSSEQG  
 KLSPMVYIQHTITTTMAAPSGLSLQDGHGLRYLLKEEDLETQDIYQKLLGKLQALKEVEMCVQIDDL  
 LSSITYSPKLERKTSEGIPTSDNEKGERNSKRVCFNVAGDEQEDSGHDTISNRDSYSDCNSNRNSIAS  
 FTSICSSQCSSYFHSDEMDSGDELPLSVRISHDKQDKIHSCLEHLFSQVDSITNLLKGQAVVRAFDQTKY  
 LTPGRGLQEFQEMEPKLSCKRRLRHQKDPWNLPSVVRTLAQNIRKFVEEVKCRLLLALLEYSDESETQ  
 LRRDMVFCQTLVATVCAFSEQLMAALNQMFDNSKENEMETWEASRRWLDQIANAGVLFHFQSLSPNLTD  
 EQAMLEDLTLVALFDLEKVSFYFKPSEEEPLVANVPLTYQAEGRQALKVYFYIDSYHFEQLPQRLKNGGG  
 FKIHVPLFAQALESMEGYYYRDNVSVVEFQAQINAASLEKVKYNQKLRAFYLKSNPPNSTSKAAYVD  
 KLMRPLNALDELYRLVASFIRSKRTAACANTACSASGVLLSVSSELCNRLGACHIIMCSSGVHRCTLSV  
 TLEQAAILARSHGLPPRYIMQATDVMRKQGARVQNTAKNLGVRDRTPQSAPRLYKLCEPPPPAGEE

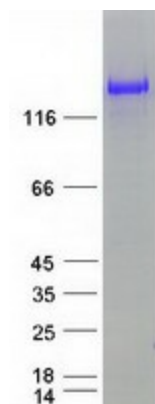
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

- Tag:** C-Myc/DDK
- Predicted MW:** 182.4 kDa
- Concentration:** >0.05 µg/µL as determined by microplate BCA method
- Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining
- Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
- Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
- Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
- Storage:** Store at -80°C.
- Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq:	<a href="#">NP_079146</a>
Locus ID:	80243
UniProt ID:	<a href="#">Q70Z35</a>
RefSeq Size:	5132
Cytogenetics:	8q13.2
RefSeq ORF:	4818
Synonyms:	DEP.2; DEPDC2; P-REX2; PPP1R129

**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]).