

Product datasheet for **SC305242**

PREX2 (NM_025170) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PREX2 (NM_025170) Human Untagged Clone
Tag:	Tag Free
Symbol:	PREX2
Synonyms:	DEP.2; DEPDC2; P-REX2; PPP1R129
Vector:	<u>pCMV6 series</u>



[View online »](#)

Fully Sequenced ORF: >NCBI ORF sequence for NM_025170, the custom clone sequence may differ by one or more nucleotides

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ATGAGCGAGGACAGCCGCGGAGACAGCCGCGCCGAGAGCGCCAAGGACCTGGAGAAGCAG
CTTCGCCTGCGCGTGTGCGTGCTCAGCGAGCTCCAGAAGACCGAGCGGGACTATGTGGGC
ACGCTGGAGTTCCTGGTGTGGCATTCTTACACAGAATGAACAGTGTGCAGCATCAAAA
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ACAATCCGGACATTTCTTTTGAACCTGCATGCTGCTTGGAGGACGGAAGAACACAGATGTT
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CTCCAAGCCATGAAAGCTGTCTGTTCCAACATAAACGAGGCCAAGAGACAGATGGAGAAG
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CGGTTGAAGAACAGCAAGGCATCTACAGATGGACATCGGTACCTTTTTCTGTGGCCGGATC
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GACAATGGATTTATGCACCATGCTCTTGAAGAAAGCGAATCAAAGATGAACCCCTACTT
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ATGGAGTTCCTCTGCTCCCTCCTCTCTTAGGAATATCCCAGGATGGAAGACAGCAC
TGCAATCTGAGGACCTTCTTCTCAAGAAATGCTCTTAGCAGAGAGGGCCCTGTCTGA

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Restriction Sites:	Please inquire
ACCN:	NM_025170
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_025170.4</u> , <u>NP_079446.3</u>
RefSeq Size:	3024 bp
RefSeq ORF:	2940 bp
Locus ID:	80243
UniProt ID:	<u>Q70Z35</u>
Cytogenetics:	8q13.2

Gene 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]

Transcript Variant: This variant (2) differs in the 3' UTR and coding region compared to variant 1, that causes a frameshift. The resulting isoform (b) is shorter and has a distinct C-terminus compared to isoform a.