

Product datasheet for **RN201661**

Ubiad1 (NM_001107993) Rat Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Ubiad1 (NM_001107993) Rat Untagged Clone
Tag: Tag Free
Symbol: Ubiad1
Synonyms: RGD1309588
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
Fully Sequenced ORF: >RN201661 representing NM_001107993
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCTGCGGTACAGGCCCGGGGAGAAGATTAATATCCAGGCAGGAGAGACGACCCAGGTCGGGGACA
CGGACCAGCAGAGGAACGACTGGCCTGAGGAGGACAGGCTCCAGAACGATCCTGGAGACAGAAGTGCGC
CTCCTATGTGTTGGCCCTGAGACCCTGGAGCTTCAGTGCCTCACTCACTCCTGTGGCCCTGGGCAGTGCC
TTGGCCTACAGATCCCAGGGTGTCTGGATCCCAGGCTGTTGTTGGGTTGTGCAGTGGCCGTCTGGCTG
TGCACGGGCTGGCAATTTGGTCAACACTTACTATGACTTTTCCAAGGGCATTGACCACAAAAGAGTGA
TGACAGGACTCTGGTGGACAGAATTTGGAGCCCCAGGATGTTGTTTCGATTTGGAGTCTTCTCTACACC
TTGGGCTGTGTGTGTGCTGCTTACCTCTACTACCTATCCACCCTGAAACTGGAGCACTTGGCTCTCATCT
ACTTTGGAGGCCGTGTCTGGCTCCTTTCTCTACACAGGAGGAATTGGATTCAAGTACGTGGCACTGGGAGA
CCTCGTCATCCTCATCACTTTGGCCCGCTGGCCGTGATGTTGCCTATGCTGTCCAGGTGGGGTCTTGG
GCCATATCCCTCTGGTCTACGCCATCCCTCTGGCCCTCAGCACAGAGGCCATTCTCATTCTAAACA
CCAGGGACATGGAGTCTGACCGGAGGCTGGCATCGTCACGCTGGCCATCCTCATCGGGCCACCCTCTC
CTACATCCTCTACAACAGCTGCTCTTCCCTGCCCTACCTGATCTTACCATCCTGGCCACGCACTGCAGC
ATCAGCCTGGCACTGCCCTCCTCACCAGCCCCATGGCCTTCTCCCTGGAGAGGCAGTTCGCGAGCCAGG
CCTTCAACAAGCTGCCCCAGAGGACGGCCAAGCTCAACCTCCTGCTGGGGCTTTTCTATGTCTTTGGCAT
CATCCTGGCACCAGCAGGCGAGCCTGCCAGACT**CTGA**

ACGGTACGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_001107993



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Insert Size:	1017 bp
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).
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_001107993.1</u> , <u>NP_001101463.1</u>
RefSeq Size:	2978 bp
RefSeq ORF:	1017 bp
Locus ID:	313706
UniProt ID:	<u>D3ZG27</u>
Cytogenetics:	5q36
Gene Summary:	Prenyltransferase that mediates the formation of menaquinone-4 (MK-4) and coenzyme Q10. MK-4 is a vitamin K2 isoform required for endothelial cell development. Mediates the conversion of phylloquinone (PK) into MK-4, probably by cleaving the side chain of phylloquinone (PK) to release 2-methyl-1,4-naphthoquinone (menadione; K3) and then prenylating it with geranylgeranyl pyrophosphate (GGPP) to form MK-4. Also plays a role in cardiovascular development independently of MK-4 biosynthesis, by acting as a coenzyme Q10 biosynthetic enzyme: coenzyme Q10, also named ubiquinone, plays an important antioxidant role in the cardiovascular system. Mediates biosynthesis of coenzyme Q10 in the Golgi membrane, leading to protect cardiovascular tissues from NOS3/eNOS-dependent oxidative stress (By similarity).[UniProtKB/Swiss-Prot Function]