

Product datasheet for **MG223606**

Ube3a (NM_173010) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ube3a (NM_173010) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ube3a
Synonyms:	4732496B02; 5830462N02Rik; A130086L21Rik; Hpve6a; mKIAA4216
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG223606 representing NM_173010
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGCGAGCAGCTGCAAAGCATCTAATAGAACGCTACTACCATCAGTTAACTGAGGGCTGTGAAATG
 AGGCCTGCACGAATGAGTTTTGTCTTCTGTCCAACCTTTCTTCGTATGGATAACAATGCAGCAGCTAT
 TAAAGCCCTTGAGCTTTATAAAATTAATGCAAACTCTGTGATCCTCATCCCTCCAAGAAAGGAGCAAGC
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 TCTCAATTTGTTCAATATTGTAATGGAGAATAGTAATCTCCACAGTCTGAAATATCTGAAATGGCGTTG
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 GTTTTATATCAGAGTTTAAAGGATTTATTGGAATATGAAGGGAGTGTGGAAGATGATATGATGATCACTT
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 TACAGAGTATGACGGTGGCTATACGAGGGAATCTGTTGTGATTAG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG223606 representing NM_173010
Red=Cloning site Green=Tags(s)

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MKRAAAKHLIERYYHQLTEGCGNEACTNEFCASCPTFLRMDNNAAAIKALELYKINAKLCDPSPKKGAS
SAYLENSKGASNNSEIKMNKKEGKDFKDVIIYLTEEKVYEIYEFCRESEDYSPLIRVIGRIFSSAEALVLS
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DAIRRVYSLLANEKLETAFLNALVYLSPNVECDLTYHNVTYTRDPNYLNLFIIVMENSNLHSPEYLEMAL
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EEFINEPLNDVLEMDKDYTFKVFETENKFSFMTCPFILNAVTKNLGLYYDNRIRMYSEIRITVLYSLVQG
QQLNPYLRLKVRDHIIDDALVRLMIAMENPADLKKQLYVEFEGEQGVDEGGVSKFEFFQLVVEEIFNPD
IGMFTYDEATKLFWFNPSSFETEGQFTLIGIVLGLAIYNNCILDVHFPVMVYRKLKMGKGTFRDLGDSHP
VLYQSLKDLLEYEGSVEDMMITFQISQTDLFGNPMYDLKENGDKIPITNENRKEFVNLYSYILNKSV
EKQFKAFRRGFHMVTNESPLKYLFRPEEIELLICGSRNLDFQALEETTEYDGGYTRESVVIR
    
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TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_173010

ORF Size: 2286 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:

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: [NM_173010.3](#), [NP_766598.1](#)

RefSeq Size: 3888 bp

RefSeq ORF: 2289 bp

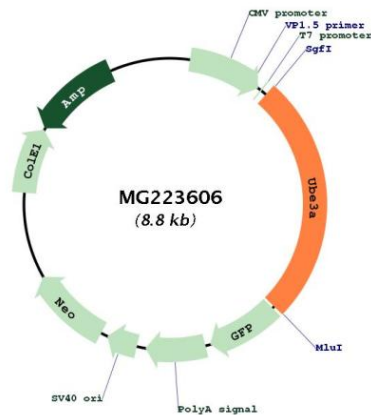
Locus ID: 22215

UniProt ID: [O08759](#)

Cytogenetics: 7 33.95 cM

Gene Summary: E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and transfers it to its substrates. Several substrates have been identified including the ARNTL/BMAL1, ARC, RAD23A and RAD23B, MCM7 (which is involved in DNA replication), annexin A1, the PML tumor suppressor, and the cell cycle regulator CDKN1B (PubMed:20211139, PubMed:24728990). Additionally, may function as a cellular quality control ubiquitin ligase by helping the degradation of the cytoplasmic misfolded proteins. Finally, UBE3A also promotes its own degradation in vivo (By similarity). Plays an important role in the regulation of the circadian clock: involved in the ubiquitination of the core clock component ARNTL/BMAL1, leading to its proteasomal degradation (PubMed:24728990). Acts as a regulator of synaptic development by mediating ubiquitination and degradation of ARC (PubMed:20211139). Synergizes with WBP2 in enhancing PGR activity (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG223606