

Product datasheet for **RG232544**

APEX2 (NM_001271748) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APEX2 (NM_001271748) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	APEX2
Synonyms:	APE2; APEXL2; XTH2; ZGRF2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG232544 representing NM_001271748 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCGCTTCTATCGTTTGTGCAAATCCGAGCAGAAGCCCTCCTGGCGGCAGGCAGCCATGTGATCATTC
TGGGTGACCTGAATACAGCCCACCGCCCCATTGACCACTGGGATGCAGTCAACCTGGAATGCTTTGAAGA
GGACCCAGGGCGCAAGTGGATGGACAGCTTGTCTAGTAACTTGGGGTCCAGTCTGCCTCATGTAGGG
CCCTTCATCGATAGCTACCGCTGCTTCCAACAAAGCAGGAGGGGCCTTCACTGCTGGTCAGCAGTCA
CTGGCGCCGCCATCTCAACTATGGCTCCCGGCTTGACTATGTGCTGGGGACAGGACCCGGTCATAGA
CACCTTTCAGGCCTCTTTCCTGCTGCCTGAGGTGATGGGCTCTGACCACTGCCCTGTGGGTGCACTTTG
AGTGTGCTCCTCTGTGCTGCAAAACAGTGCCACCTCTGTGCACCCGCTTCTCCCTGAGTTTGAGGCA
CCCAGCTCAAGATCCTTCGCTTCTAGTTCCTCTCGAACAAGTCTGTGTTGGAGCAGTCGACGCTGCA
GCACAACAATCAAACCCGGGTACAGACATGCCAAAACAAGCCCAAGTGCCTCAACCAGGCCTCAGCCC
AGTCAGTTGGCTCTAGCAGAGGCCAGAAAACTGAAGAGCTACTTTCAGCCCTCCCCTAGCTGTCCCC
AAGCCTCCTGACATAGAGTGCCTAGCCTACCACTGATGAGCGCCCTCATGACCCGAAGACTCCAGA
AGAGAAGGCAGTGGCCAAAGTGGTGAAGGGCAGGCCAAGACTTCAGAAGCCAAAGATGAGAAGGAGTTA
CGGACCTCATTCTGGAAGTCTGTGCTGGCGGGCCCTTGGCACACCCCTCTGTGGGGCCACAGGGAGC
CATGTGTGATGCGTACTGTGAAGAAGCCAGGACCAACTTGGGCCCGCTTCTACATGTGTGCCAGGCC
CCGGGGTCTCCCACTGACCCCTCTCCCGGTGCAACTTCTTCTCTGGAGCAGGCCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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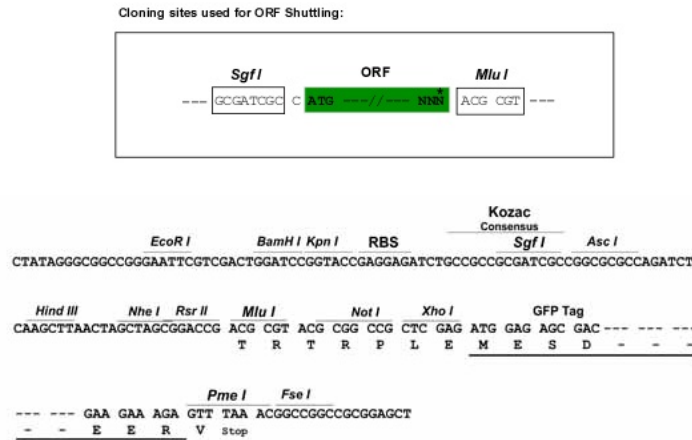
Protein Sequence: >RG232544 representing NM_001271748
 Red=Cloning site Green=Tags(s)

MRFYRLLQIRAEALLAAGSHVILGLDLNTAHRPIDHWDVAVNLECFEEDPGRKWMDSLLSNLGCQSASHVG
 PFIDSYRCFQPKQEGAFTCWSAVTGARHLNYGSRLDYVLGDRTLVIDTFQASFLLPVEMGSDHCPVGAVL
 SVSSVPAKQCPLCTRFLPEFAGTQLKILRFLVPLEQSPVLEQSTLQHNNQTRVQTCQNKAVRSTRPQP
 SQVGSRRGQKNLKSYPSPSPSQASPDIELPSLPLMSALMTPKTPEEKAVAKVVKGQAKTSEAKDEKEL
 RTSFWKSVLAGPLRTPLCGGHREPCVMRTVKKGPNLGRRFYMCARPRGPPTDPSSRCNFFLWSRPS

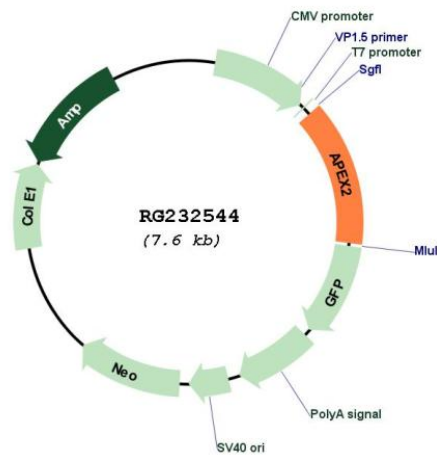
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001271748

ORF Size: 1041 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:	<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:	NM_001271748.2
RefSeq Size:	1914 bp
RefSeq ORF:	1044 bp
Locus ID:	27301
Cytogenetics:	Xp11.21
Protein Families:	Druggable Genome
Protein Pathways:	Base excision repair
Gene Summary:	Apurinic/apryrimidinic (AP) sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. AP sites are pre-mutagenic lesions that can prevent normal DNA replication so the cell contains systems to identify and repair such sites. Class II AP endonucleases cleave the phosphodiester backbone 5' to the AP site. This gene encodes a protein shown to have a weak class II AP endonuclease activity. Most of the encoded protein is located in the nucleus but some is also present in mitochondria. This protein may play an important role in both nuclear and mitochondrial base excision repair. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Nov 2012]