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Product datasheet for SC330961

APEX2 (NM_001271748) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: APEX2 (NM_001271748) Human Untagged Clone

Tag: Tag Free

Symbol: APEX2

Synonyms: APE2; APEXL2; XTH2; ZGRF2

Vector: pCMV6-Entry (PS100001)

Fully Sequenced ORF:

>SC330961 representing NM_001271748.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

ATGCGCTTCTATCGTTTGCTGCAAATCCGAGCAGAAGCCCTCCTGGCGGCAGGCAGCCATGTGATCATT
CTGGGTGACCTGAATACAGCCCACCGCCCCATTGACCACTGGGATGCAGTCAACCTGGAATGCTTTGAA
GAGGACCCAGGGCGCAAGTGGATGGACAGCTTGCTCAGTAACTTGGGGTGCCAGTCTGCCTCTCATGTA
GGGCCCTTCATCGATAGCTACCGCTGCTTCCAACCAAAGCAGGAGGGGGCCTTCACCTGCTGGTCAGCA
GTCACTGGCGCCCGCCATCTCAACTATGGCTCCCGGCTTGACTATGTGCTGGGGGACAGGACCCTGGTC
ATAGACACCTTTCAGGCCTCTTTCCTGCTGCCTGAGGTGATGGGCTCTGACCACTGCCCTGTGGGTGCA
GTCTTGAGTGTGTCCTCTGTGCCTGCAAAACAGTGCCCACCTCTGTGCACCCGCTTCCTCCCTGAGTTT
GCAGGCACCCAGCTCAAGATCCTTCGCTTCCTAGTTCCTCTCGAACAAAGTCCTGTGTTGGAGCAGTCG
ACGCTGCAGCACAACAATCAAACCCGGGTACAGACATGCCAAAACAAAGCCCAAGTGCGCTCAACCAGG
CCTCAGCCCAGTCAGGTTGGCTCTAGCAGAGGCCAGAAAAACCTGAAGAGCTACTTTCAGCCCTCCCCT
AGCTGTCCCCAAGCCTCTCCTGACATAGAGCTGCCTAGCCTACCACTGATGAGCGCCCTCATGACCCCG
AAGACTCCAGAAGAGAAGGCAGTGGCCAAAGTGGTGAAGGGGCAGGCCAAGACTTCAGAAGCCAAAGAT
GAGAAGGAGTTACGGACCTCATTCTGGAAGTCTGTGCTGGCGGGGCCCTTGCGCACACCCCTCTGTGGG
GGCCACAGGGAGCCATGTGTGATGCGTACTGTGAAGAAGCCAGGACCCAACTTGGGCCGCCGCTTCTAC
ATGTGTGCCAGGCCCCGGGGTCCTCCCACTGACCCCTCCTCCCGGTGCAACTTCTTCCTCTGGAGCAGG
CCCAGCTGA

Restriction Sites: SgfI-MluI

ACCN: NM_001271748

Insert Size: 1044 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).

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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_001271748.1
RefSeq Size:	1914 bp
RefSeq ORF:	1044 bp
Locus ID:	27301
Cytogenetics:	Xp11.21
Protein Families:	Druggable Genome
Protein Pathways:	Base excision repair
MW:	38.5 kDa
Gene Summary:	Apurinic/apyrimidinic (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] Transcript Variant: This variant (2) lacks a 5' exon compared to variant 1. This variant represents translation initiation at a downstream AUG compared to variant 1; the 5'-most initiation codon, as used in variant 1, is associated with a weak Kozak sequence and a truncated ORF that would render the transcript a candidate for nonsense-mediated decay (NMD). Leaky scanning may allow translation initiation at the downstream AUG. The encoded protein (isoform 2) has a shorter N-terminus, compared to isoform 1.