

Product datasheet for **SC320587**

APE1 (APEX1) (NM_001641) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APE1 (APEX1) (NM_001641) Human Untagged Clone
Tag:	Tag Free
Symbol:	APE1
Synonyms:	APE; APE1; APEN; APEX; APX; HAP1; REF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM_001641.2
GAGGAGCTAGGCTGCCATCGGGCCGGTGCAGATACGGGGTTGCTCTTTTGCTCATAAGAG
GGGCTTCGCTGGCAGTCTGAACGCAAGCTTGAGTCAGGACCCTTAATTAAGATCCTCAA
TTGGCTGGAGGGCAGATCTCGCGAGTAGGGCAACGCGGTAAAAATATTGCTTCGGTGGGT
GACGCGGTACAGCTGCCAAGGGCGTTCGTAACGGGAATGCCAAGCGTGGGAAAAAGGG
AGCGGTGGCGGAAGACGGGGATGAGCTCAGGACAGAGCCAGAGGCCAAGAAGAGTAAGAC
GGCCGCAAAGAAAAATGACAAAGAGGCAGCAGGAGAGGGCCAGCCCTGTATGAGGACCC
CCCAGATCAGAAAACCTCACCCAGTGGCAAACCTGCCACACTCAAGATCTGCTCTTGAA
TGTGGATGGGCTTCGAGCCTGGATTAAGAAGAAAGGATTAGATTGGGTAAGGAAGAAGC
CCCAGATATACTGTGCCTCAAGAGACCAATGTTGAGAGAACAACACTACCAGCTGAACT
TCAGGAGCTGCCTGGACTCTCTCATCAATACTGGTCAGCTCCTTCGGACAAGGAAGGTA
CAGTGGCGTGGGCTGCTTTCCCGCCAGTGCCTCAAAAGTTTCTTACGGCATAGGCGA
GGAGGAGCATGATCAGGAAGGCCGGGTGATTGTGGCTGAATTTGACTCGTTTGTGCTGGT
AACAGCATATGTACCTAATGCAGGCCGAGGTCTGGTACGACTGGAGTACCGGCAGCGCTG
GGATGAAGCCTTTCGCAAGTTCTGAAGGGCCTGGCTTCCCGAAAGCCCTTGTGCTGTG
TGGAGACCTCAATGTGGCACATGAAGAAATTGACCTTCGCAACCCCAAGGGGAACAAAA
GAATGCTGGCTTACGCCACAAGAGCGCCAAGGCTTCGGGGAATTACTGCAGGCTGTGCC
ACTGGCTGACAGCTTTAGGCACCTTACCCCAACACACCCTATGCCTACACCTTTTGAC
TTATATGATGAATGCTCGATCCAAGAATGTTGGTTGGCGCCTGATTACTTTTTGTGTC
CCTACTCTGTTACCTGCATTGTGTGACAGCAAGATCCGTTCCAAGGCCCTCGGCAGTGA
TCACTGCTTATCACCTATACCTAGCACTGTGACACCACCCTAAATCACTTTGAGCCT
GGGAAATAAGCCCTCACTACCTTCTTTTAAACACTCTTCAGAGAAATCTGCAT
TCTATTTCTCATGTATAAACTAGGAATCCTCCAACCAGGCTCCTGTGATAGAGTTCTTT
TAAGCCCAAGATTTTTATTTGAGGGTTTTTTGTTTTTAAAAAAAATTGAACAAAGAC
TACTAATGACTTTGTTTGAATTATCCACATGAAAATAAAGAGCCATAGTTTCAAAAAAAA
AAAAAAAAAAAAAAAAAAAA



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Restriction Sites:	Please inquire
ACCN:	NM_001641
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:	NM_001641.2 , NP_001632.2
RefSeq Size:	1574 bp
RefSeq ORF:	957 bp
Locus ID:	328
UniProt ID:	P27695
Cytogenetics:	14q11.2
Domains:	Exo_endo_phos
Protein Families:	Druggable Genome, Stem cell - Pluripotency, Transcription Factors
Protein Pathways:	Base excision repair

Gene Summary:

The APEX gene encodes the major AP endonuclease in human cells. It encodes the APEX endonuclease, a DNA repair enzyme with apurinic/apyrimidinic (AP) activity. Such AP activity sites occur frequently in DNA molecules by spontaneous hydrolysis, by DNA damaging agents or by DNA glycosylases that remove specific abnormal bases. The AP sites are the most frequent pre-mutagenic lesions that can prevent normal DNA replication. Splice variants have been found for this gene; all encode the same protein. Disruptions in the biological functions related to APEX are associated with many various malignancies and neurodegenerative diseases.[provided by RefSeq, Dec 2019]

Transcript Variant: This variant (1) contains the full-length first exon and is the longest transcript. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.