

Product datasheet for **SC127859**

APC (NM_000038) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	APC (NM_000038) Human Untagged Clone
Tag:	Tag Free
Symbol:	APC
Synonyms:	BTPS2; DESMD; DP2; DP2.5; DP3; GS; PPP1R46
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127859 sequence for NM_000038 edited (data generated by NextGen Sequencing)

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ATGGCTGCAGCTTCATATGATCAGTTGTTAAAGCAAGTTGAGGCACTGAAGATGGAGAAC
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Clone variation with respect to NM_000038.5
5465 t=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000038 unedited
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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000038 unedited
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GAATTATAAACCCCCCAAGATCCCCGGGGATTTGAAATATTCTCGCACGGGCCAG
AAGCGGTATCTTCTCCGCTGGCGGAC

Restriction Sites:

NotI-NotI

ACCN:

NM_000038

Insert Size:	11000 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	A TrueClone.
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_000038.3 , NP_000029.2
RefSeq Size:	10719 bp
RefSeq ORF:	8532 bp
Locus ID:	324
UniProt ID:	P25054
Cytogenetics:	5q22.2
Domains:	Armadillo_seg
Protein Families:	Druggable Genome
Protein Pathways:	Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Pathways in cancer, Regulation of actin cytoskeleton, Wnt signaling pathway

Gene Summary:

This gene encodes a tumor suppressor protein that acts as an antagonist of the Wnt signaling pathway. It is also involved in other processes including cell migration and adhesion, transcriptional activation, and apoptosis. Defects in this gene cause familial adenomatous polyposis (FAP), an autosomal dominant pre-malignant disease that usually progresses to malignancy. Mutations in the APC gene have been found to occur in most colorectal cancers. Disease-associated mutations tend to be clustered in a small region designated the mutation cluster region (MCR) and result in a truncated protein product. [provided by RefSeq, Dec 2019]

Transcript Variant: This variant (3) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at an alternate start codon, compared to variant 1. This variant also contains an alternate in-frame exon compared to variant 1. The encoded isoform (b) has a distinct N-terminus and is longer than isoform a. Variants 2, 3, and 4 all encode the same isoform (b).