

Product datasheet for **RC400175**

Axin 1 (AXIN1) (NM_003502) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	Axin 1 (AXIN1) (NM_003502) Human Mutant ORF Clone
Mutation Description:	P345L
Affected Codon#:	345
Affected NT#:	c.1034
Nucleotide Mutation:	AXIN1 Mutant (P345L), Myc-DDK-tagged ORF clone of Homo sapiens axin 1 (AXIN1), transcript variant 1 as transfection-ready DNA
Effect:	Missense
Symbol:	AXIN1
Synonyms:	AXIN; PPP1R49
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_003502
ORF Size:	2586 bp
Restriction Sites:	Sgfl-Mlul



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ORF Nucleotide Sequence:

>RC400175 representing NM_003502
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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 GCGAGAGCCATCTACCGAAAGTACATTTGATAACAATGGCATCGTGTCCCGGCAGACCAAGCCAGCCA
 CCAAGAGCTTCATAAAGGGCTGCATCATGAAGCAGCTGATCGATCCTGCCATGTTTGACCAGGCCAGAC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
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Protein Sequence: >RC400175 representing NM_003502
 Red=Cloning site Green=Tags(s)

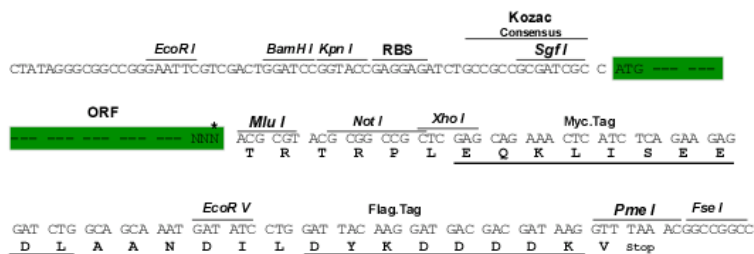
MNIQEQQGFPLDLGASFTEDAPRPPVPGEELVSTDRPASYSFCSGKGVGKGETSTATPRRDLGLG
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 ARAIYRKYILDNNGIVSRQTKPATKSF IKGCIMKQLIDPAMFDQAQTEIQATMEENTYPSFLKSDIYLEY
 TRTGSESPKVCSDQSSSGSGTGKISGYLPTLNEDEEWKCDQDDEDDGRDAAPPGRLPQKLLLETAPRV
 SSSRRYSEGREFRYGSWREPVPNPYYVAGYALAPATSANDSEQQLSSDADTLSLTDSSVDGIPLRIRK
 QHRREMQESVQVNGRVPLPHIPRTYRVPKEVRVEPQKFAEELIHRLEAVQRTREAEKLEERLKRVRMEE
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 SFAWGLEPHSHGARSRGYSESVGAAPNASDGLAHSGKGVACKRNAKKAESGKSASTEVPGASEDAEKNQ
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 PNPLTQLEEARRRLEEEKASRAPSKQRYVQVMRRGRACVRPACAPVLHVVPVSDMELSETETRSQR
 KVGGSQAQPCDSIVVAYYFCGEPYRTRLVRGRAVTLGQFKELLTKKGSYRYFKKVSDFDCGVVFEEV
 REDEAVLPVFEEKIIGKVEKVD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:
Cloning Scheme:

SgfI-MluI

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

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).

RefSeq: [NP_003493](#)

RefSeq Size:	3675 bp
RefSeq ORF:	2589 bp
Locus ID:	8312
Cytogenetics:	16p13.3
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Stem cell relevant signaling - Wnt Signaling pathway
Protein Pathways:	Basal cell carcinoma, Colorectal cancer, Endometrial cancer, Pathways in cancer, Wnt signaling pathway
MW:	95 kDa
Gene Summary:	<p>This gene encodes a cytoplasmic protein which contains a regulation of G-protein signaling (RGS) domain and a dishevelled and axin (DIX) domain. The encoded protein interacts with adenomatosis polyposis coli, catenin beta-1, glycogen synthase kinase 3 beta, protein phosphate 2, and itself. This protein functions as a negative regulator of the wntless-type MMTV integration site family, member 1 (WNT) signaling pathway and can induce apoptosis. The crystal structure of a portion of this protein, alone and in a complex with other proteins, has been resolved. Mutations in this gene have been associated with hepatocellular carcinoma, hepatoblastomas, ovarian endometrioid adenocarcinomas, and medullablastomas. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]</p>