

Product datasheet for **MR225159**

Axin1 (NM_009733) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Axin1 (NM_009733) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Axin1
Synonyms:	AI316800; Axin; Fu; fused; Kb; Ki; kinky; knobbly
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR225159 representing NM_009733
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCAGAGTCCAAAATGAATGTCCAGGAGCAGGGTTTCCCTTGGACCTCGGAGCAAGTTTACCCGAAG
 ATGCCCCCGGCCCCAGTGCCTGGAGAAGAGGGAGAAGTGGTATCTACTGATTGAGGCCGTGCAACCA
 CAGTTTCTGTTCTGGAAAGGTACCAGCATTAAAAGTGAGACCTCAACAGCCACCCCAAGACGTTAGAT
 CTGGATCTGGGATATGAGCCGAGGGCAGTGCCTCCCCACCCACCATATTTGAGGTGGGCTGAGTCAC
 TGCATTCTTACTGGATGACCAAGATGGGATCAGCCTGTTGAGGACTTTCCTGAAGCAGGAGGGCTGTGC
 TGACCTGCTGGACTTCTGGTTTGCCTGCAGTGGCTTCAGGAAGCTTGAGCCCTGTGACTCAAATGAGGAA
 AAGAGGCTGAAGCTGGCAAGAGCCATCTACCGAAAGTACATCCTGGATAGCAATGGCATTGTGTCCAGAC
 AAACCAAGCCAGCCACTAAGAGCTTCATAAAGGACTGTGTGATGAAGCAGCAGATAGATCCTGCCATGTT
 TGACCAGGCACAGACAGAAATCCAGTCCACCATGGAGGAGAATACCTACCCTTCTTTCTTAAGTCTGAC
 ATTTATTTGGAGTACACAAGGACAGGCTCAGAGAGTCCGAAGGTCTGCAGTGAACAGAGCTCAGGGTCTG
 GAACAGGGAAGGGCATGTCTGGATACCTGCCACTTTGAATGAGGATGAAGAATGAAATGTGACCAAGA
 TGCAGATGAGGATGATGGCCGAGACCCTCTCCCCCAGCAGGCTCACCCAGAAGCTGCTATTGGAGACT
 GCTGCCCGAGGGCCCCCTCAAGTAGACGGTACAACGAAGGCAGAGAGCTCAGGTATGGATCTTGGAGGG
 AGCCCGTCAACCCCTACTACGTCAACTCTGGCTATGCCCTGGCCCCAGCCACCAGTGCCAATGACAGTGA
 GCAGCAGAGCCTGTCCAGTATGCTGACACGCTATCCCTACGGACAGTGTGTGGATGGAATCCCCCA
 TACAGGATCCGTAAGCAGCACCGAAGGGAGATGCAGGAGAGTATCCAAGTCAATGGGCGGGTACCTCTAC
 CTCACATTCCTCGCACTTACCGAATGCCAAAGGAGATCCGGGTAGACCACAGAAATTTGTGAGAGCT
 TATTCACCGTCTAGAGGCTGTCCAGCGCACTCGAGAGGCTGAAGAAAAGTTGGAGGAACGGCTGAAGCGT
 GTACGCATGGAGGAAGAAGGGGAGGATGGTGAATGCCTTCTGGCCCATGGCAAGTACAAAGTGCCTT
 CTGTCCCAGCTTGGCACCATTTCCACCCCGCTATGTGGATATGGGCTGCTCTGGACTGCGGGATGCCCA
 TGAGGAGAATCCTGAGAGCATCCTGGATGAGCACGTGCAAGGGTCAAGAGGACCTGGCTGCCAGTCA
 CCTGGCCAGGCCACCGCTCTCCTGACAGTGGGCATGTGGCTAAGACTGCAGTGTAGGGGGTACAGCCT
 CCGGGCATGGGAAGCATGTTCTAAGTTAGGGTTGAAGCTGGATACAGCTGGCCTGCACCATCATAGACA
 TGTCCACCACCATGTTCCACATAATTGAGTACAGCTAAGGAGCAAATGGAGGCTGAAGTTGCCCGCAGG
 GTCCAGAGCAGCTTCTCGTGGGGCCAGAAACACATGGTCAATGCCAAGCCCCGGAGCTATCCGAGAACG
 CAGGCACCACCCTCAGTGTGGGGATTTGGCCTTTGGTGGTAAAAGTGTGCACCTTCCAAAAGAAACAC
 CAAGAAGGCTGAATCTGGGAAGAATGCCAATGCTGAGGTACCCAGTACCACAGAGGACGCTGAGAAGAAC
 CAGAAGATCATGCAGTGGATCATTGAGGGAGAGAAGGAGATCAGTAGACACCCGGAAGGCAGGCCATGGGT
 CTTCTGGGTTGAGGAAGCAGCAGGCCATGAAAGTCCAGGCCCTTGCCATCGAGCGTCTGGGGCCGT
 GCACCCCTGGGTGAGCGCTCAGCTTCGGAATCTGTCCAGCCTTCTCATCTTTTCATCCAAGATCCCACA
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 TGTGAGGCCAGCTTGTGCACCGTGTGAGTGTGTACCAGCCGTGTCGGACTTGAACCTCCGAGACA
 GAGACAAAATCACAAAGAAAGGCAGGTGGCGGGAGTGCACCACCATGTGACAGCATTGTTGTGGCCTACT
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 TGGAAAAGGTGGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR225159 representing NM_009733
 Red=Cloning site Green=Tags(s)

MQSPKMNVEQGFPLDLGASFTEDAPRPPVPGEEGELVSTDSRPVNHSCSGKGTSIKSETSTATPRRSD
 LDLYEPEGSASPTPPYLRWAESLHSLDDQDGI SLFRFLKQEGCADLLDFWFACSGFRKLEPCDSNEE
 KRLKLARAIYRKYILDSNGIVSRQTKPATKSF IKDCVMKQQIDPAMFDQAQTEIQSTMEENTYPSFLKSD
 IYLEYTRTGSSEPKVCSDDQSSSGSGTGKMGSGYLPTLNEDEEWKCDQDADEDDGRDPLPSSRLTQKLLLET
 AAPRAPSSRRYNEGRELRYGWSWREPVPNPYYVNSGYALAPATSANDSEQQSLSSDADTL SLTDSSVDGIPP
 YRIRKQHRREMQESI QVNGRVPLPHIPRTYRMPKEIRVEPQKFAEEL IHRLEAVQRTREAEKLEERLKR
 VRMEEEGEDGEMPSGPMASHKLPSVPAWHHFPPRYVDMGCSGLRDAHEENPESILDEHVQRVMRTPGCQS
 PPGHRSPPDSGHVAKTAVLGGTASGHGKHVPKLGKLDTAGLHHHRVHHVHHNSARPKEQMEAEVARR
 VQSSF SWGPETHGHAKPRSYSENAGTTL SAGDLAFGGKTSAPSKRNTKKAESGKNANAEPSTTDAEKN
 QKIMQWIEGEKEISRHRKAGHGSSGLRKQQAHESSRPLS IERPGAVHPWVSAQLRNSVQPSHLF IQDPT
 MPPNPAPNPLTQLEEARRRLEEEK RANKLPSKQRYVQAVMQRGRTCVRPACAPVLSVVPVAVSDLELSET
 ETKSQRKAGGGSAPP CDSIVVAYYFCGEP I PYRTLVRGRAVTLGQFKELLTKKGSYRYFFKKVSD EFDG
 VVFEEVREDEAVLPVFEKIIGKVEKVD

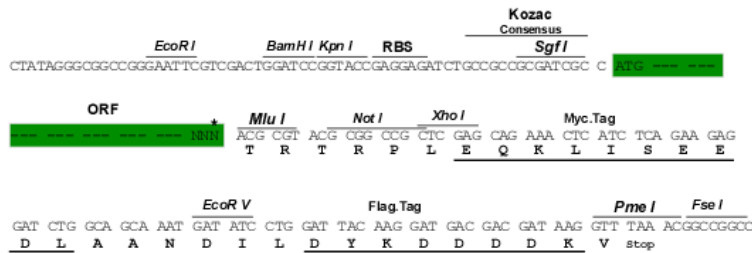
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9033_c08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

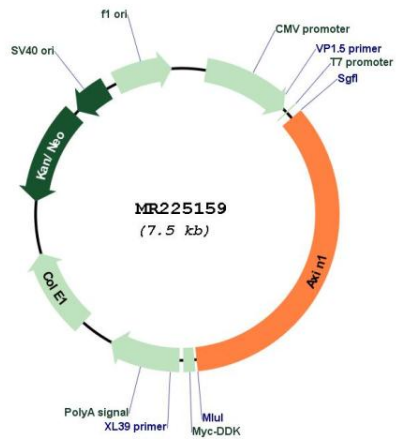
Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN:	NM_009733
ORF Size:	2604 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_009733.2 , NP_033863.2
RefSeq Size:	3809 bp
RefSeq ORF:	2607 bp
Locus ID:	12005
UniProt ID:	O35625
Cytogenetics:	17 13.07 cM
MW:	97.3 kDa
Gene Summary:	Component of the beta-catenin destruction complex required for regulating CTNNB1 levels through phosphorylation and ubiquitination, and modulating Wnt-signaling (By similarity). Controls dorsoventral patterning via two opposing effects; down-regulates CTNNB1 to inhibit the Wnt signaling pathway and ventralize embryos, but also dorsalizes embryos by activating a Wnt-independent JNK signaling pathway. In Wnt signaling, probably facilitates the phosphorylation of CTNNB1 and APC by GSK3B. Likely to function as a tumor suppressor. Facilitates the phosphorylation of TP53 by HIPK2 upon ultraviolet irradiation. Enhances TGF-beta signaling by recruiting the RNF111 E3 ubiquitin ligase and promoting the degradation of inhibitory SMAD7 (By similarity). Also component of the AXIN1-HIPK2-TP53 complex which controls cell growth, apoptosis and development.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR225159