OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MR222754

Adgra2 (NM_054044) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adgra2 (NM_054044) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adgra2
Synonyms:	8430414O08Rik; 9530074E10Rik; Gpr124; mKIAA1531; Tem5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR222754 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCGGTGCCTCCCGCGCGTTTGCTGCTGCTGCCGCTGCTGCCTTGTCTTCTGCTCCTGGCTCCTGGAA
CTCGGGGTGCGCCTGGCTGCCCGGTCCCTATCCGCGGTTGCAAGTGCTCTGGGGAGCGGCCCAAGGGACT
AAGTGGCGGCGCCCACAACCCGGCTCGAAGGAGGGTGGTGTGCGGCGGTGGGGATCTCCCCGAACCTCCA
GATCCCGGCCTTCTGCCAAACGGCACCATCACCTTGCTCTTGAGCAACAACAAGATTACTGGGCTCCGCA
ATGGATCCTTCTTGGGACTGTCCCTGTTGGAGAAGTTGGACCTGAGGAGCAATGTCATCAGCACTGTGCA
GCCTGGAGCCTTCCTAGGTCTGGGAGAGCTAAAACGCTTAGATCTCTCCAACAATCGGATTGGCTGTCTC
ACCTCTGAGACATTTCAAGGGCTCCCTAGACTTCTCAGACTAAACATATCTGGAAACATCTACTCTAGTC
TGCAACCTGGGGTCTTTGATGAGCTGCCAGCCCTTAAGATTGTGGACTTTGGTACTGAGTTTCTGACCTG
TGACTGCCGCCTGCGCTGGCTGCTGCCCTGGGCCCGGAATCACTCCCTGCAGCTGTCTGAGCGCACACTC
TGTGCCTACCCCAGTGCCCTGCACGCCCATGCCCTGAGCAGCCTCCAGGAGTCCCAGCTTCGCTGTGAAG
GGGCCCTGGAACTGCACACCCACTACCTCATCCCATCCCTTCGCCAAGTGGTGTTCCAGGGTGACCGCCT
GCCCTTCCAGTGCTCAGCCAGCTACTTGGGCAACGATACCCGGATCCACTGGTACCACAATGGGGCTCCT
ATGGAGAGCGATGAGCAGGCCGGCATCGTCCTTGCTGAAAACCTTATCCATGATTGCACCTTCATCACCA
GTGAGCTGACCCTGTCTCACATTGGTGTGTGGGCCTCTGGTGAATGGGAGTGCTCCGTGTCCACAGTCCA
AGGCAACACCAGCAAGAAGGTGGAGATAGTAGTGCTGGAGACCTCTGCCTCCTACTGCCCTGCAGAGCGG
GTGACCAACAACCGTGGGGACTTCAGGTGGCCCCGAACCTTGGCTGGCATCACGGCTTACCAGTCCTGTT
TACAGTACCCCTTCACCTCTGTGCCCTTGAGTGGGGGAGCCCCGGGTACCCGAGCCTCACGCAGGTGTGA
CCGAGCTGGCCGCTGGGAGCCAGGGGACTACTCGCACTGTCTGTACACCAATGACATCACTCGGGTGCTC
TACACCTTTGTGCTGATGCCCATCAACGCCTCCAATGCATTGACGTTGGCCCACCAGCTGCGAGTGTATA
CCGCAGAGGCCGCCAGCTTCTCAGACATGATGGACGTGGTCTATGTGGCTCAGATGATCCAGAAGTTTTT
GGGTTACGTTGACCAGATCAAGGAGCTGGTGGAGGTGATGGTGGACATGGCCAGCAACCTGATGCTGGTG

View online »

GATGAGCACCTTCTGTGGCTGGCCCAGAGAGAAGACAAAGCCTGCAGTGGCATTGTGGGTGCCCTGGAGC
GAATCGGAGGAGCTGCTCTTAGCCCCCATGCCCAGCACATCTCTGTGAATTCAAGAAATGTGGCACTGGA
GGCCTACCTCATCAAGCCTCACAGCTACGTGGGTCTGACTTGCACGGCTTTCCAGAGGAGGGAGGTAGGA
GTGTCGGGTGCACAGCCAAGCAGCGTCGGCCAGGATGCCCCAGTGGAGCCCGAACCCCTAGCTGATCAGC
AGCTTAGGTTCCGCTGCACCACTGGGAGGCCCAACATTTCTCTGTCATCCTTCCACATCAAGAATAGCGT
GGCCCTGGCCTCCATCCAGCTGCCCCCCAGCCTGTTCTCAACCCTTCCGGCTGCCCTGGCTCCCCCAGTC
CCTCCAGATTGCACCCTGCAACTGCTGGTCTTCAGAAATGGCCGTCTTTTCCGCAGCCACGGCAACAACA
CTTCCCGTCCTGGAGCAGCTGGGCCTGGCAAGAGGCGTGGTGTGGCCACCCCAGTCATATTTGCAGGAAC
CAGTGGCTGTGGTGTGGGAAACTTGACGGAGCCCGTGGCTGTGTCACTGAGGCACTGGGCTGAAGGAGCT
GACCCCATGGCAGCTTGGTGGAACCAGGACGGGCCTGGAGGCTGGAGTTCTGAAGGCTGCAGGCTCCGCT
ACAGCCAGCCCAACGTCAGCTCCCTGTACTGCCAGCACTTGGGCAATGTGGCCGTGCTTATGGAGCTGAA
TGCATTCCCGCGGGAGGCAGGAGGCTCTGGGGCTGGGTTGCATCCCGTCGTGTACCCCTGCACGGCTTTG
CTGCTACTCTGTCTCTTCTCCACCATCATCACGTACATCCTCAACCACAGCTCCATCCACGTGTCCCGGA
AGGGTTGGCACATGCTGCTGAACCTTTGTTTCCATATGGCCATGACCTCTGCTGTCTTCGTGGGGGGCGT
CACGCTCACCAACTACCAAATGGTTTGTCAAGCGGTGGGCATCACTCTGCACTACTCTTCCTTGTCGTCA
CTGCTCTGGATGGGGGTCAAGGCTCGAGTCCTCCACAAGGAGCTTAGTTGGAGGGCACCCCCTCTGGAAG
AAGGGGAAGCAGCTCCGCCTGGTCCTCGCCCCATGCTCCGGTTCTACTTGATTGCTGGAGGGATCCCCCT
CATAATCTGCGGCATCACCGCTGCGGTCAACATCCACAACTACCGGGACCACAGTCCCTATTGTTGGCTG
GTGTGGCGTCCAAGCCTTGGTGCCTTCTACATACCGGTGGCGTTGATTCTGCCTATCACCTGGATCTACT
TCTTGTGTGCAGGCCTTCACTTACGGAGCCATGTGGCCCAGAATCCAAAGCAGGGTAACAGGATCTCTCT
GGAGCCAGGGGAAGAGCTGAGGGGTTCCACCAGGCTCAGGAGTAGTGGCGTCCTCCTGAATGACTCTGGT
TCTCTTTTGGCTACAGTTAGCGCAGGAGTAGGGACACCTGCGCCCCCAGAGGATGGTGATGGCGTATATT
CTCCTGGAGTCCAGCTGGGGGCGCTGATGACCACGCATTTCCTGTACCTGGCTATGTGGGCTTGTGGTGC
CTTGGCGGTGTCTCAGCGCTGGCTGCCCCGAGTGGTGTGTAGCTGTCTGTACGGCGTGGCAGCTTCAGCT
CTTGGTCTGTTTGTCTTCACTCACCACTGTGCCAGACGTAGAGATGTCCGGGCTTCCTGGCGCGCCTGCT
GCCCTCCTGCTTCGCCCTCGGCCTCCCATGTCCCAGCCCGGGCCCTGCCGACTGCTACAGAGGATGGATC
CCCAGTGTTGGGGGAGGGACCAGCCTCTCTCAAGTCCTCCCCAAGTGGCAGCAGTGGCCGCGCGCCGCCA
CCCCCCTGCAAACTCACCAATCTGCAGGTGGCCCAGAGTCAGGTGTGCGAGGCAAGCGTGGCCGCCCGCG
GAGATGGAGAGCCAGAGCCCACCGGCTCCCGTGGCAGCCTAGCTCCCCGGCACCATAACAACCTGCATCA
TGGGCGCCGAGTACACAAGAGTCGGGCCAAGGGGCACCGAGCCGGAGAGACTGGTGGTAAGAGCCGGCTC
AAGGCGTTGCGCGCGGGCACGTCCCCAGGAGCTCCCGAGCTGTTGTCCAGTGAGAGCGGCAGTTTGCACA
ACAGCCCGTCTGACAGCTACCCGGGCAGCAGCCGCAACAGTCCAGGCGACGGTCTTCCACTCGAGGGTGA
GCCCATGCTTACGCCGTCGGAGGGCAGTGACACAAGCGCCGCGCCAATCGCTGAGACGGGGCGCCCCGGG
CAGCGCCGCAGCGCCAGCCGTGACAACCTCAAGGGCAGCGGCAGCGCGCTGGAGAGGGAGAGCAAGCGCC
GCTCCTATCCGCTCAACACTACCAGTCTTAACGGTGCCCCCAAAGGGGGCAAGTATGAGGATGCCAGTGT
AACTGGTGCAGAGGCCATAGCGGGAGGCTCCATGAAGACTGGCCTCTGGAAAAGCGAGACCACCGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

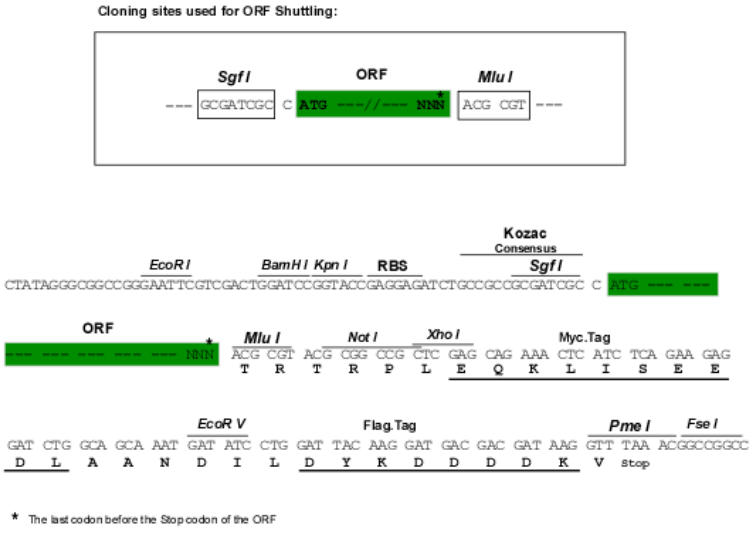
>MR222754 protein sequence
Red=Cloning site Green=Tags(s)

MPVPPARLLLLPLLPCLLLLAPGTRGAPGCPVPIRGCKCSGERPKGLSGGAHNPARRRVVCGGGDLPEPP
DPGLLPNGTITLLLSNNKITGLRNGSFLGLSLLEKLDLRSNVISTVQPGAFLGLGELKRLDLSNNRIGCL
TSETFQGLPRLLRLNISGNIYSSLQPGVFDELPALKIVDFGTEFLTCDCRLRWLLPWARNHSLQLSERTL
CAYPSALHAHALSSLQESQLRCEGALELHTHYLIPSLRQVVFQGDRLPFQCSASYLGNDTRIHWYHNGAP
MESDEQAGIVLAENLIHDCTFITSELTLSHIGVWASGEWECSVSTVQGNTSKKVEIVVLETSASYCPAER
VTNNRGDFRWPRTLAGITAYQSCLQYPFTSVPLSGGAPGTRASRRCDRAGRWEPGDYSHCLYTNDITRVL
YTFVLMPINASNALTLAHQLRVYTAEAASFSDMMDVVYVAQMIQKFLGYVDQIKELVEVMVDMASNLMLV
DEHLLWLAQREDKACSGIVGALERIGGAALSPHAQHISVNSRNVALEAYLIKPHSYVGLTCTAFQRREVG
VSGAQPSSVGQDAPVEPEPLADQQLRFRCTTGRPNISLSSFHIKNSVALASIQLPPSLFSTLPAALAPPV
PPDCTLQLLVFRNGRLFRSHGNNTSRPGAAGPGKRRGVATPVIFAGTSGCGVGNLTEPVAVSLRHWAEGA
DPMAAWWNQDGPGGWSSEGCRLRYSQPNVSSLYCQHLGNVAVLMELNAFPREAGGSGAGLHPVVYPCTAL
LLLCLFSTIITYILNHSSIHVSRKGWHMLLNLCFHMAMTSAVFVGGVTLTNYQMVCQAVGITLHYSSLSS
LLWMGVKARVLHKELSWRAPPLEEGEAAPPGPRPMLRFYLIAGGIPLIICGITAAVNIHNYRDHSPYCWL
VWRPSLGAFYIPVALILPITWIYFLCAGLHLRSHVAQNPKQGNRISLEPGEELRGSTRLRSSGVLLNDSG
SLLATVSAGVGTPAPPEDGDGVYSPGVQLGALMTTHFLYLAMWACGALAVSQRWLPRVVCSCLYGVAASA
LGLFVFTHHCARRRDVRASWRACCPPASPSASHVPARALPTATEDGSPVLGEGPASLKSSPSGSSGRAPP
PPCKLTNLQVAQSQVCEASVAARGDGEPEPTGSRGSLAPRHHNNLHHGRRVHKSRAKGHRAGETGGKSRL
KALRAGTSPGAPELLSSESGSLHNSPSDSYPGSSRNSPGDGLPLEGEPMLTPSEGSDTSAAPIAETGRPG
QRRSASRDNLKGSGSALERESKRRSYPLNTTSLNGAPKGGKYEDASVTGAEAIAGGSMKTGLWKSETTV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

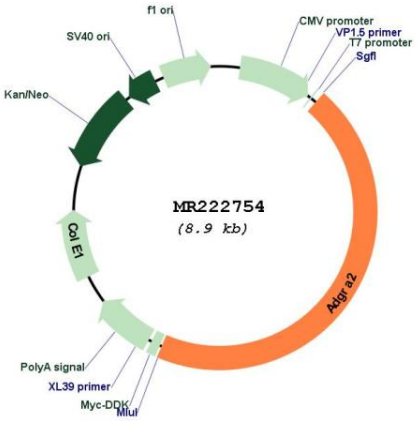


ACCN: NM_054044

ORF Size: 3990 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:	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_054044.2, NP_473385.2
RefSeq Size:	5520 bp
RefSeq ORF:	4011 bp
Locus ID:	78560
UniProt ID:	Q91ZV8
Cytogenetics:	8 A2
MW:	142.5 kDa
Gene Summary:	Endothelial receptor which functions together with RECK to enable brain endothelial cells to selectively respond to Wnt7 signals (WNT7A or WNT7B) (PubMed:25373781, PubMed:25558062, PubMed:28803732). Plays a key role in Wnt7-specific responses, such as endothelial cell sprouting and migration in the forebrain and neural tube, and establishment of the blood-brain barrier (PubMed:21071672, PubMed:21282641, PubMed:21421844, PubMed:25373781, PubMed:28288111). Acts as a Wnt7-specific coactivator of canonical Wnt signaling: required to deliver RECK-bound Wnt7 to frizzled by assembling a higher-order RECK-ADGRA2-Fzd-LRP5-LRP6 complex (By similarity). ADGRA2-tethering function does not rely on its G-protein coupled receptor (GPCR) structure but instead on its combined capacity to interact with RECK extracellularly and recruit the Dishevelled scaffolding protein intracellularly (By similarity). Binds to the glycosaminoglycans heparin, heparin sulfate, chondroitin sulfate and dermatan sulfate (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR222754