

Product datasheet for RC229431

GPR124 (ADGRA2) (NM_032777) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPR124 (ADGRA2) (NM_032777) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPR124
Synonyms:	GPR124; TEM5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229431 representing NM_032777 Red=Cloning site Blue=ORF Green=Tags(s)

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Protein Sequence: >RC229431 representing NM_032777
 Red=Cloning site Green=Tags(s)

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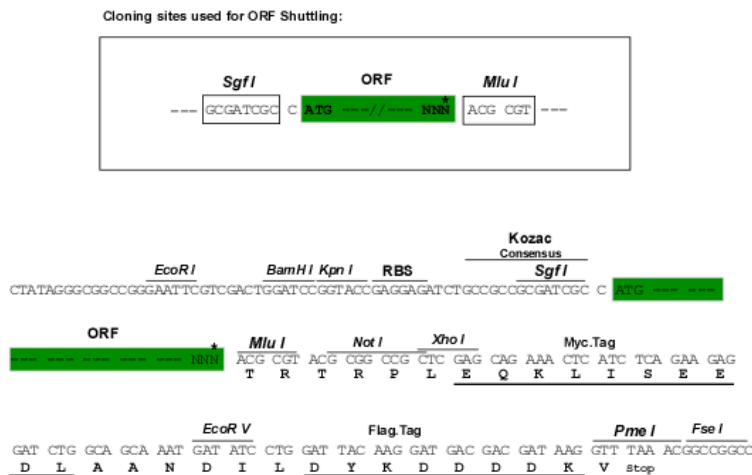
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LWKSETTV
  
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8011_e03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_032777

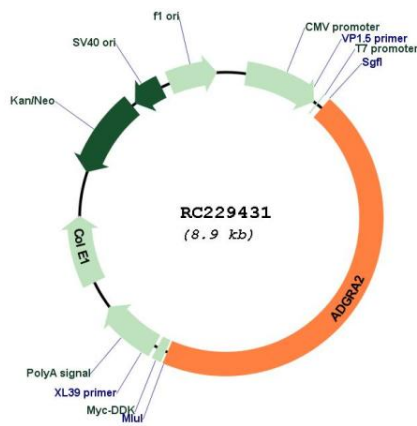
ORF Size: 4014 bp

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:	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_032777.9
RefSeq ORF:	4017 bp
Locus ID:	25960
UniProt ID:	Q96PE1
Cytogenetics:	8p11.23
Protein Families:	Druggable Genome, Transmembrane
MW:	142.5 kDa

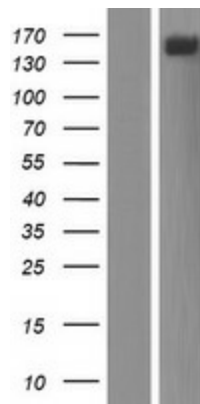
Gene Summary:

Endothelial receptor which functions together with RECK to enable brain endothelial cells to selectively respond to Wnt7 signals (WNT7A or WNT7B) (PubMed:28289266, PubMed:30026314). 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 (By similarity). 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 (PubMed:30026314). 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 (PubMed:30026314). Binds to the glycosaminoglycans heparin, heparin sulfate, chondroitin sulfate and dermatan sulfate (PubMed:16982628).[UniProtKB/Swiss-Prot Function]

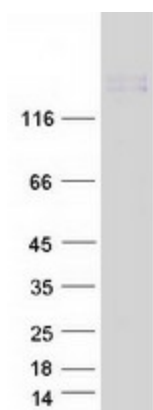
Product images:



Circular map for RC229431



Western blot validation of overexpression lysate (Cat# [LY432439]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC229431 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ADGRA2 protein (Cat# [TP329431]). The protein was produced from HEK293T cells transfected with ADGRA2 cDNA clone (Cat# RC229431) using MegaTran 2.0 (Cat# [TT210002]).