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Product datasheet for RC203010

GPATCH3 (NM_022078) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GPATCH3 (NM_022078) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GPATCH3
Synonyms:	GPATC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203010 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCGGTGCCCGGCGAGGCGGAGGAGGAGGCGACAGTTTACCTGGTAGTGAGCGGTATCCCCTCCGTGT
TGCGCTCGGCCCATTTACGGAGCTATTTTAGCCAGTTCCGAGAAGAGCGCGGCGGTGGCTTCCTCTGTTT
CCACTACCGGCATCGGCCTGAGCGGGCCCCTCCGCAGGCCGCTCCTAACTCTGCCCTAATTCCTACCGAC
CCAGCCGCTGAGGGCCAGCTTCTCTCTCAGACTTCGGCCACCGATGTCCGGCCTCTCTCCACTCGAGACT
CTACTCCAATCCAGACCCGCACCTGCTGCTGCGTCATCTCGGTAAGGGGGTTGGCTCAAGCTCAGAGGCT
TATTCGCATGTACTCGGGCCGCCGGTGGCTGGATTCTCACGGGACTTGGCTACCGGGTCGCTGTCTCATC
CGCAGACTTCGGCTACCTACGGAGGCATCAGGTCTGGGCTCCTTTCCCTTCAAGACCCGGAAGGAACTGC
AGAGTTGGAAGGCAGAGAATGAAGCCTTCACCCTGGCTGACCTGAAGCAACTGCCGGAGCTGAACCCACC
AGTGCTGATGCCCAGAGGGAATGTGGGGACTCCCCTGCGGGTCTTTTTGGAGTTGATCCGGGCCTGCCGC
CTACCCCCTCGGATCATCACCCAGCTGCAGCTCCAGTTCCCCAAGACAGGTTCCTCCCGGCGCTACGGCA
ATGTGCCTTTTGAGTATGAGGACTCAGAGACTGTGGAGCAGGAAGAGCTTGTGTATACAGCAGAGGGTGA
AGAAATACCCCAAGGAACCTACCTGGCAGATATACCAGCCAGCCCCTGTGGAGAGCCTGAGGAAGAAGTG
GGGAAGGAAGAGGAAGAAGAGTCTCACTCAGATGAGGACGATGACCGGGGTGAGGAATGGGAACGGCATG
AAGCGCTGCATGAGGACGTGACCGGGCAGGAGCGGACCACTGAGCAGCTCTTTGAGGAGGAGATTGAGCT
CAAGTGGGAGAAGGGTGGCTCTGGCCTGGTGTTTTATACTGATGCCCAGTTCTGGCAGGAGGAAGAAGGA
GATTTTGATGAACAGACAGCCGATGACTGGGATGTGGACATGAGTGTGTACTATGACAGAGATGGTGGAG
ACAAGGATGCCCGAGACTCTGTCCAAATGCGTCTGGAACAGAGACTCCGAGATGGACAGGAAGATGGCTC
TGTGATCGAACGCCAGGTGGGCACCTTTGAGCGCCACACCAAGGGCATTGGGCGGAAGGTGATGGAGCGG
CAGGGCTGGGCTGAGGGCCAGGGCCTGGGCTGCAGGTGCTCAGGGGTGCCTGAGGCCCTGGATAGTGATG
GCCAACACCCCAGATGCAAGCGTGGATTGGGGTACCATGGAGAGAAGCTACAGCCATTTGGGCAACTGAA
GAGGCCCCGTAGAAATGGCTTGGGGCTCATCTCCACCATCTATGATGAGCCTCTACCCCAAGACCAGACG
GAGTCACTGCTCCGCCGCCAGCCACCCACCAGCATGAAGTTTCGGACAGACATGGCCTTTGTGAGGGGTT
CCAGTTGTGCTTCAGACAGCCCCTCATTGCCTGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203010 protein sequence
Red=Cloning site Green=Tags(s)

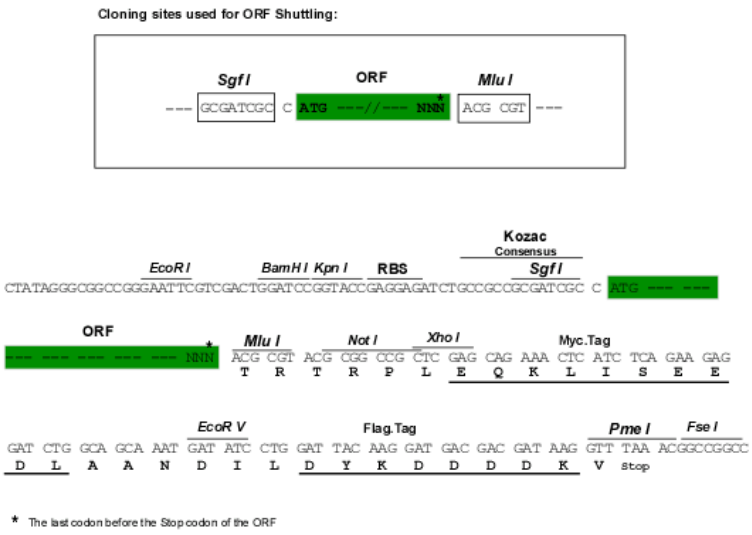
MAVPGEAEEEATVYLVVSGIPSVLRSAHLRSYFSQFREERGGGFLCFHYRHRPERAPPQAAPNSALIPTD
PAAEGQLLSQTSATDVRPLSTRDSTPIQTRTCCCVISVRGLAQAQRLIRMYSGRRWLDSHGTWLPGRCLI
RRLRLPTEASGLGSFPFKTRKELQSWKAENEAFTLADLKQLPELNPPVLMPRGNVGTPLRVFLELIRACR
LPPRIITQLQLQFPKTGSSRRYGNVPFEYEDSETVEQEELVYTAEGEEIPQGTYLADIPASPCGEPEEEV
GKEEEEESHSDEDDDRGEEWERHEALHEDVTGQERTTEQLFEEEIELKWEKGGSGLVFYTDAQFWQEEEG
DFDEQTADDWDVDMSVYYDRDGGDKDARDSVQMRLEQRLRDGQEDGSVIERQVGTFERHTKGIGRKVMER
QGWAEGQGLGCRCSGVPEALDSDGQHPRCKRGLGYHGEKLQPFGQLKRPRRNGLGLISTIYDEPLPQDQT
ESLLRRQPPTSMKFRTDMAFVRGSSCASDSPSLPD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6411_g09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_022078

ORF Size: 1575 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_022078.3

RefSeq Size: 2145 bp

RefSeq ORF: 1578 bp

Locus ID: 63906

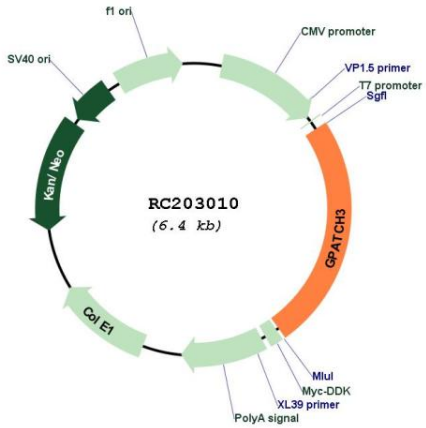
UniProt ID: Q96I76

Cytogenetics: 1p36.11

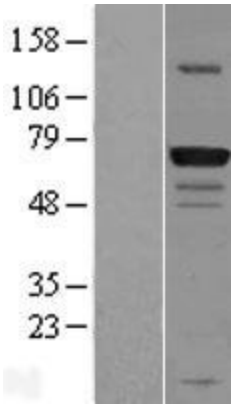
MW: 59.3 kDa

Gene Summary: Involved in transcriptional regulation. It is able to activate transcription from the CXCR4 promoter and therefore it might control neural crest cell migration involved in ocular and craniofacial development (PubMed:28397860). Is a negative regulator of immune antiviral response, acting via down-regulation of RIG-I-like receptors signaling and inhibition of type I interferon production. The control mechanism involves interaction with mitochondrial MAVS and inhibition of MAVS assembly with downstream proteins implicated in antiviral response, such as TBK1 and TRAF6 (PubMed:28414768).[UniProtKB/Swiss-Prot Function]

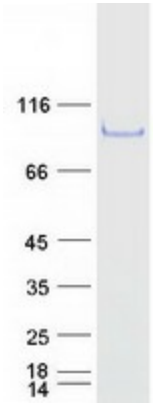
Product images:



Circular map for RC203010



Western blot validation of overexpression lysate (Cat# [LY411801]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203010 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GPATCH3 protein (Cat# [TP303010]). The protein was produced from HEK293T cells transfected with GPATCH3 cDNA clone (Cat# RC203010) using MegaTran 2.0 (Cat# [TT210002]).