

Product datasheet for **SC114863**

Centaurin gamma 1 (AGAP2) (NM_014770) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Centaurin gamma 1 (AGAP2) (NM_014770) Human Untagged Clone
Tag:	Tag Free
Symbol:	Centaurin gamma 1
Synonyms:	CENTG1; GGAP2; PIKE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_014770, the custom clone sequence may differ by one or more nucleotides

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ATGCATGCCAGAGGCGAGTTCGTTGTAGCTGCAGTGAGAGCAGAAGTCAGACGACATGAGGTGGCCAAGC
AGGCTCTAAACCGCCTCAGGAAGCTGGCAGAGAGGGTGGACGACCCCGAACTCCAGGACAGCATCCAGGC
CTCATTGGACAGCATTTCGAGAGGCTGTGATCAATAGCCAGGAATGGACTTTGAGCCGCTCCATTCTGAA
CTGCGCCTGGGTGTGCTGGGCGATGCCAGGAGTGGGAAGTCATCGCTCATCCACCGATTCCCTGACTGGT
CATAACCAGGTGCTGGAGAAGACAGAGAGTGAGCAGTACAAGAAAGAAATGTTGGTGGATGGACAGACACA
TCTGGTGTAAATCCGAGAGGAAGCTGGGACCTGATGCCAAGTTCTCAGGCTGGGAGATGCTGTGATC
TTCGTCTTCAGCCTGGAGGATGAGAACAGTTTCCAGGCTGTGAGCCGCTCCATGGGAGCTGAGTTCCC
TTCGCGGGGAGGACGAGGAGGCTGGCCTTGGCACTGGTGGGACACAAGACAGGATCAGTGTCTCCTC
CCCTCGGTGGTGGGAGATGCTCGTGCCAGAGCTCTGTGCGGGACATGAAACGCTGCAGCTACTATGAG
ACTTGTGCAACCTATGGGCTCAATGTGGATCGGGTCTTCCAGGAGTGGCCAGAAGGTGGTGCCTTGC
GCAAGCAGCAACAGCTTCTGGCTGCCTGCAAGTCCCTGCCAGCTCCCAAGCCACTCAGCTGCATCCAC
TCCGGTAGCTGGCCAGGCTAGTAACGGGGGCCACACTAGCGACTACTCTTCTCCCTCCCGTCTCACCG
AATGTTGGTCACCGGGAGCTCCGAGCCGAGGCAGCTGCAGTGGCTGGATTGAGCACCCAGGGTCCCTGC
ACCGGGCAGCCAAGCGCAGGACCAGCCTTTTTGCGAATCGTGGGGTAGTGACTCCGAGAAACGAAGCTT
GGATAGTCGGGGAGAGACAACAGGGAGTGGGCGAGCCATCCCCATCAAACAGAGCTTCTACTAAACGA
AGTGGCAATTCCTTGAACAAAGAATGGAAGAAGAAATATGTAACCTGTCCAGTAATGGCTTTCTACTCT
ACCACCCAGTATTAACGATTACATCCACAGTACCCACGGCAAGGAGATGGACTTGTGCGAACAACAGT
CAAAGTCCCGGCAAGCGGCCCCCGAGGGCCATCTCTGCCTTTGGCCCCCAGCCAGCATTAAACGGCTC
GTCAAGGACATGAGCACTGTCCAGATGGGTGAAGGCCTGGAAGCCACTACTCCATGCCAAGCCGTAAT
CCAGCCCCAGTTCCTGACGCCACCAGATCAGACATCCAAACACTGCTGAAGCCAGACCCGGAATTT
GGCCCCAGCCCTCAGCACGGACTGTACCCCATCTGGAGACCTGAGCCCCCTGAGTCGGAACCCCTCCT
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AGGCTGAAGAGGAAAACCTTGTGTTCTGATCGTGTCCAGCACGGGTGAGACGTGGCACTTTGAGGCAGC
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GAGAGCAGCAAGGTCAAGCTGCGCACAGACAGCCAAAGCGAGGCCGTGGCCATCCAGGCGATCCGGAACG
CCAAGGGGAATTCATCTGCGTGGACTGCGGGGCCCAACCCACGTGGGCCAGCTTGAACCTGGGCGC
CCTCATCTGCATCGAGTGTCTGGCATCCACCGCAACCTGGGCACACACCTGTCCCGCTTCTGCTGCTG
GACTTGGACGACTGGCCACGGGAGCTGACCCTGGTGTGACGGCTATTGGCAACGACACGGCCAACCGCG
TGTGGAAAGCGACACGGAGGCGTGCCTGCAAGCCCTCGCGGGACTCTTCGCGGGAGGAGCGGAGTCTGT
GATTTCGCGCAAGTACGAGCAGCTACTGTTCTGGCGCCGCTGAGCACCTCGGAGGAGCCGCTGGGCCGC
CAGCTGTGGGCCCGCTGACAGGCCAGGACGTGGTACCCTTCTCCTGCTTTGGCCATGCGCGACAGC
GGCCGCTGACACCAGCGTAGAGGACCCACAGCTGCGTCCCCACTCCACCTGGCGGCCGAGCTCGCCCA
CGTCGTATCACGCAACTGCTGTGTGGTACGGCGCGGACGTGGCGGCCGCTGACGCCAGGCGCCGACG
GCGCTGTTCTACGCCCCCAGGCTGGAAGCCAGCTGTGCGCCGACATCCTTCTCCAGCACGGCTGCCCG
GTGAGGGCGGACGCGGCCACCCAGCCAGCGCGGCCACCCAGCCAGCATCACCGCCAGGCCAGCCCGCC
CCGCCCGGAGCAGCGCCGCTAGCGTGGCGCGCCGACGCCCGGTTGCGCTGGTATAG
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_014770 unedited
 NTTTTTTGGAAATANATAAAAATAAAAAANNNNTTTTCCCCGCCCGTCCCGCAAAGG
 GCGGTAGGCGTGTACGGTGGNAGTCTATATAAGCAGAGCTCATTTAGGTGACACTATAG
 AATACAAGCTACTTGTCTTTTTGCAGCGGCCGGAATTCGGCACGAGGGCAAGAGTAAG
 ACCTTGGACAACAGTGACTTGCATCCGGGACCGCTGCCGGCTCTCTCTCCGTAACC
 CTCCCACCAACTCCGAGTCCAGCCACTGCTGTCAACCGCTGCTTCCGCGCAGCCCCGGG
 CCTGCACCTCCAATCACTCTGGAGCCTCCAGCTCCGGGGCTGAAACGGGGCCGGAGGGG
 GGCCGAGCATCCACTCGTGACCGCAAGATGCTCAAGTTTATCAGCGGCATCTTCACCAAG
 AGCACAGGAGGGCCTCCTGGCTCCGGGCCCTTCCCGGACCCCCAGCCTGTCTTCTGGC
 AGCGGGTCCAGGGAGCTGCTGGGCGCCGAGCTCCGCGCTTCCCCTAAGGCTGTGATCAAT
 AGCCAGGAATGGACTTTGAGCCGCTCCATTCTGAACTGCGCCTGGGTGTGCTGGGCGAT
 GCCAGGAGTGGGAAGTCATCGCTCATCCACCGATTCTGACTGGCTCATAACAGGTGCTG
 GAGAAGACAGAGAGTGAGCAGTACAAGAAAGAAATGTTGGTGGATGGACAGACACATCTG
 GTGCTAATCCGAGAGGAAGCTGGGGCACCTGATGCCAAGTTCTCAGGCTGGGAGATGCT
 GTGATCTTCGTCTTCAGCCTGGGAGATGAGAACAGTTTCCAGGCTGTGAGCCGTCCAT
 GGGCAGCTGAGTTCCTTCGCGGGGAGGACCGAGGAGCCTGGCCCGGNCAGTGGTGGNG
 ACACCAGACGGATCAGTGCTTCTCCCTCCGGTGGTAGGAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_014770 unedited
 CCATTGCCCTTGGGTGATGGCACTTCCCAGGNCCAGNGAGCACTGGGGAAGGGAGTC
 ACAGGGCATGCCACCCGGTTCGTTCAGGAAAAGCTATGACCGCGCCCAATCTAGAG
 TCGAGTTTTTTTTTTTTTTTTTTTGTGGAACAATGGAGAGGGGGCGTGTGAGCTGGGT
 CTCATGCCTCGTTGGGAGAGGGAGGTGAGTTTGTGTCTTCTGGAAGGCGTGGGGCTG
 TGCCCTCGTGGGGTAGGAAGTCTCCCGTGGGCGGGGTGCGGATCGGAGAGGTGAGTG
 GGTGCGTCTGTCCAGCGGTGAGCCCGGTGGTGTGCGCCGCGCCGCGTGGGGATGGGG
 TGTCTCTCCCGTGGGCAACTATACCAGCGCAACCGGGCGTCCGCGCGGCCACGCTAG
 CGGCGTGTCCGGCGCGGGGGCTGGGCGTGGCGGTGATGCTGGGCGTGGTGGCCGCGC
 TGGGCGTGGTGGCCGCGTCCCGCCCTACCCGGGCAGCCGTGCTGGAGAAGGATGTCGG
 CGCACAGCTGGCTCCAGCCTGGCGGGCGTAGAACAGCGCCGTGCGGCCCTGGGCGTAC
 GGCCCGCACGTCCGCGCCGTACCACAGAAGCAGTTGCGTGATGACGACGTGCGCTGAGC
 TCGGCCGCGCACGTGGAGTGTGGAGCGCAGCTGTGGGTCTCTACGCTGGTGTGAAACGGG
 CCGTGTAGCGCATGGGCCAAAAACCAGATCACGAAATCACCGTCTGGGCTGCACTGGG
 GCCCAAGCTGGGGGCTCAATCGCTTCTCCGAGGTGCTAAGAGGCCCGGGAATATTTCT
 CTGTTCCGTATTGGCGCAAACCATAATTCGTGCTCCTCCGGCAATTATTCGCCAAGGC
 T

Restriction Sites:

NotI-NotI

ACCN:

NM_014770

Insert Size:

3250 bp

OTI Disclaimer: 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.

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](#)

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_014770.2](#), [NP_055585.1](#)

RefSeq Size: 3938 bp

RefSeq ORF: 2511 bp

Locus ID: 116986

UniProt ID: [Q99490](#)

Cytogenetics: 12q14.1

Domains: ArfGap, PH, ANK, RAS, RAB

Protein Pathways: Endocytosis

Gene Summary: The protein encoded by this gene belongs to the centaurin gamma-like family. It mediates anti-apoptotic effects of nerve growth factor by activating nuclear phosphoinositide 3-kinase. It is overexpressed in cancer cells, and promotes cancer cell invasion. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Aug 2011]

Transcript Variant: This variant (2) contains an alternate 5' terminal exon compared to variant 1. This results in a shorter isoform (PIKE-A) with a distinct N-terminus compared to isoform PIKE-L. This isoform is reported to be overexpressed in brain tumors and promote cancer cell invasion (PMID:14761976).