

Product datasheet for **SC126619**

Gephyrin (GPHN) (NM_020806) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gephyrin (GPHN) (NM_020806) Human Untagged Clone
Tag:	Tag Free
Symbol:	Gephyrin
Synonyms:	GEPH; GPH; GPHRYN; HKPX1; MOCODC
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >NCBI ORF sequence for NM_020806, the custom clone sequence may differ by one or more nucleotides

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ATGGCGACCGAGGGAATGATCCTTACTAACCACGACCATCAAATCCGTGTCGGAGTCCTTACAGTGAGTG
ATAGTTGCTTCAGGAATCTTGCAGAAGACCGCAGTGGGATAAATCTCAAAGATCTCGTACAAGATCCTTC
TTTGTGGGTGGGACTATATCAGCATACAAGATAGTACCAGATGAAATAGAAGAAATCAAGGAAACCTGC
ATAGATTGGTGTGATGAAAAGGAACTTAATTTGATATTAACAACCTGGAGGAACAGGATTTGCACCACGAG
ATGTCACCTCCAGAGGCCAAAAAGTAATAGAACGGGAAGCACCAGGGATGGCCCTGGCAATGCTGAT
GGGATCACTTAATGTTACACCTCTGGGCATGCTCTCTAGGCCTGTATGTGGAATCAGAGGAAAAACGCTC
ATAATTAACCTGCCAGGTAGCAAGAAAGGATCTCAGGAATGCTTTCAATTCATACTGCCAGCTCTACCTC
ATGCCATTGACCTTTTACGTGATGCCATTGTAAGTAAGGAGGTGCATGATGAACTTGAAGATTTGCC
TTCCCCACCTCCCCTCTTTCCCCTCCTCTACTACCAGCCCCATAAACAGACAGAAGACAAAGGAGTT
CAATGTGAGGAAGAGGAAGAAGAGAAGAAAGACAGTGGTGTGCTTCAACAGAAGATAGTTCCTCATCAC
ATATAACTGCAGCAGCCATTGCTGCCAAGAAGCATCCATTCTACACCAGTCTGTGTTGTCATGGCACA
CGGTGAACAGCCCATCCCTGGTCTCATCAATTATCCCATCATTAACAGATGAACGGATTCAGACTCC
ATCATTCTCGTGGTGTTCAGGTGCTCCCACGAGACACAGCCTCCCTCAGCACTACTCCTTCAGAATCGC
CTCGTGCTCAGGCTACATCTCGCCTCTCTACAGCTTCTGCCAACACAAAAAGTCCAGTCCAGGTGCAG
CAGCAAGGAGAACATTCTCAGAGCCAGTACAGTGCTGTGATATCACCAAGGTGGCTAGAAGACATCGC
ATGTCTCCTTTTCTCTGACATCTATGGACAAAGCCTTTATCACAGTCTGGAGATGACTCCGGTGTG
GGACAGAAATCATCAATTACCGAGATGGAATGGGGCGAGTCTTGTCAAGATGTATGCAAAAAGACAA
TTTACCCCTTCCCAGCATCAGTAAAAGATGGCTATGCTGTCCGAGCTGCTGATGGCCAGGAGATCGT
TTCATCATTGGGAATCCCAAGCTGGTGAACAGCCAACCTCAGACAGTAATGCCAGGACAAGTCAAGCGGG
TTACAACAGGTGCTCCAATACCCCTGCGGTGCTGATGCAGTAGTACAAGTGGAAAGATACCGAACTTATCAG
GGAATCAGATGATGGCACTGAAGAAGTGAAGTGCGAATTCTGGTGAAGCTCGGCCAGGCCAAGATATC
AGACCCATCGGCCATGACATTAAGAGGGGAATGTGTTTTGGCCAAAGGAACCCACATGGGCCCTCAG
AGATTGGTCTTCTGGCACTGTAGGTGTCACAGAGGTTGAAGTTAATAAGTTTCCAGTGGTTGCAGTCAT
GTCAACAGGGAATGAGCTGCTAAATCCTGAAGATGACCTCTTACCAGGGAAGATTCGAGACAGCAATCGT
TCAACTCTTAGCAACAATTCAGGAACATGGTTACCCACGATCAACTGGGTATTGTAGGAGACAACC
CAGATGACTTACTCAATGCCTTGAATGAGGGTATCAGTCGTGCTGATGTCATCATCACATCAGGGGGTGT
ATCCATGGGGGAAAAGGACTATCTCAAGCAGGTGCTGGACATTGATCTTCATGCTCAGATCCATTTTGGC
AGGGTTTTTATGAAACCAGGCTTGCCAACAACATTTGCAACTTTGGATATTGATGGTGAAGAAAAATAA
TCTTTGCACTACCTGGGAATCCTGTATCGGCTGTGGTCACTGCAATCTTTTGTGTGCCTGCACTGAG
GAAAATGCAGGGCATCTGGATCCTCGGCCAACCATCATCAAAGCAAGGTTATCATGTGATGTAAGAACTT
GATCCTCGTCCAGAATACCATCGGTGTATACTAAGTGGCATCACCAGAACCCTACCTTGGGCACAGA
GTACAGGTAATCAATGAGCAGCCGTCTGATGAGCATGCGCAGTGCCAATGGATTGTTGATGCTACCTCC
AAAGACAGAACAGTACGTGGAGCTCCACAAAGGCGAGGTGGTGGATGTCATGGTCATTGGACGGCTATGA
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_020806 unedited
 CGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGGTTTCTCCCGGCTCCTGTCAAGT
 CCGTGACTGCGCTGGGAAACATGGCGACCGAGGGAATGATCCTTACTAACCACGACCATC
 AAATCCGTGTCGGAGTCTTACAGTGAGTGATAGTTGCTTCAGGAATCTTGCAGAAGACC
 GCAGTGGGATAAATCTCAAAGATCTCGTACAAGATCCTTCTTTGTTGGGTGGGACTATAT
 CAGCATAACAAGATAGTACCAGATGAAATAGAAGAAATCAAGGAAACCTGATAGATTGGT
 GTGATGAAAAGGAACTTAATTTGATATTAACAACCTGGAGGAACAGGATTTGCACCACGAG
 ATGTCACCTCCAGAGGCCACAAAAGAAGTAATAGAACGGGAAGCACCAGCGATGGCCCTGG
 CAATGCTGATGGGATCACTTAATGTTACACCTCTGGGCATGCTCTCTAGGCCTGTATGTG
 GAATCAGAGGGAAAACGCTCATAATTAACCTGCCAGGTACCAAGAAAGGATCTCAGGAAT
 GCTTTCAATTCATACTGCCAGCTCTACCTCATGCCATCGACCTTTCAACGGATGCCATT
 GAAAAGTAAAAGATGTGCTGAAGAACTGAGATTTGCCTTCCACCTCCCCTTTTTCCC
 TTCTCCTACTACCAGCCCTTAACCGACAAGACCAAGCATTTCATGTGACGACAAAACGAA
 AAAAAAAAAACACCGGTGGTGTAAACAAAGAACTTTCCTCTCCCTATACTGCACACCCT
 CTGCTGCCAAATACCAACTCCTTATTCTCGGGGGGGAAGGGCTTCCCAAACACAACCTCC
 TCTACACTCTTCTTAAACGCCCGGGTACGTTACTTTGCCTTTTCAATTTCTGCCAA
 CAAAAAATTGTGTTTCCACCCCACTCCCATACTGTG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_020806 unedited
 CCGCAATCTAAAGTCGAGTTTTTTTTTTTTTTTTTTTTTAAATAATGATCAAGGAATTTTTT
 ATTCATTAAGTTTCAGTATCATTACAGAAAATGTTATGGTACAGAATTGTTTAACATTAT
 TTTGCTTTGCTCTTGATTTCCACATGAATGCTGGTAACACTAATATCTGTACAAGATCA
 GTCTTTGATTTATTTTTTGTCTGTACAATTTAAATGTATTGGTTAAAAAGGCTGTC
 AGCACTTAAGGAAGCATTTTTTTCTCAGTTTGTCTTCAAATAAAAGGTGTCCAGTTAC
 TGCCCAAGAGTACTGTGCCGTGAGGCTATTGGGGCGAGAAACCTCCCTGGATGCTCTGCA
 GGGGATGGTTCTTGAGGCAAGGCAGAGCCTCCACCCAGTCAGTCTTCTTTGGCACTGTG
 CACATAAACACGAGATACATGAGAAAGAACAAGCAAAAGCTCTCTGTAAGCAGTTATGA
 AGCATACTAAGAAGGAAATCCAAGTGTGCCTACGCTAGTATAAATAAGCAGACAGCCT
 TGATTTAAGAGCATAAGTAGTTGATTCTAAAGATGAGAAAAACAAGTTCTGCAGGCA
 CCTACCGTGTCTACTAAAAGCTATCGCTATCAGACCTATCATTGAACACACAAAAGCAAT
 TTGCCAGAAAGGATAAATCTGCCTTGAATAATCAGAACAGATTTTCTGTTAAGATTATTT
 TGAGCGTCTTTTTCTTTAAAAGATATTAATCCCTTGAATATAATTCAAGATGTTGACT
 ATCAGATCACCTTTATCCATATGGGAAACTAGCCTGGCCGTGCTTTTACAGGATCCGTCA
 TGGATGGGACTGCTTAAACTCTTCCCGCGGGACCTCTACCGCAAATGCCTGCCTCCC
 ACCCCCCCTTTGGGACTCCCCTCTGTTTGCCTTGAGGAACCAATACCTGGGCCTGGC
 TTCCCTAAGACGGTCCTT

Restriction Sites:

NotI-NotI

ACCN:

NM_020806

Insert Size:

3370 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_020806.4](#), [NP_065857.1](#)

RefSeq Size: 4318 bp

RefSeq ORF: 2310 bp

Locus ID: 10243

UniProt ID: [Q9NQX3](#)

Cytogenetics: 14q23.3-q24.1

Domains: MoCF_biosynth, MoeA_N, MoeA_C

Protein Families: Druggable Genome

Gene Summary: This gene encodes a neuronal assembly protein that anchors inhibitory neurotransmitter receptors to the postsynaptic cytoskeleton via high affinity binding to a receptor subunit domain and tubulin dimers. In nonneuronal tissues, the encoded protein is also required for molybdenum cofactor biosynthesis. Mutations in this gene may be associated with the neurological condition hyperplexia and also lead to molybdenum cofactor deficiency. Numerous alternatively spliced transcript variants encoding different isoforms have been described; however, the full-length nature of all transcript variants is not currently known. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1), also known as GephP1, represents the longer transcript and encodes the longer isoform (1).