

Product datasheet for **RC205986**

Gephyrin (GPHN) (NM_020806) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gephyrin (GPHN) (NM_020806) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Gephyrin
Synonyms:	GEPH; GPH; GPHRYN; HKPX1; MOCODC
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC205986 ORF sequence

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCCATGGCGACCGAGGAATGATCCTTACTAACCACGACCATCAAATCCGTGTCGGAGTCCTTACAGTGAGTG
ATAGTTGCTTCAGGAATCTTGCAGAAGACCGCAGTGGGATAAATCTCAAAGATCTCGTACAAGATCCTTC
TTTGTTGGGTGGGACTATATCAGCATACAAGATAGTACCAGATGAAATAGAAGAAATCAAGGAAACCTG
ATAGATTGGTGTGATGAAAAGGAACCTAATTTGATATTAACAACCTGGAGGAACAGGATTTGCACCACGAG
ATGTCACCTCCAGAGGCCACAAAAGAAGTAATAGAACGGGAAGCACCAGGGATGGCCCTGGCAATGCTGAT
GGGATCACTTAATGTTACACCTCTGGGCATGCTCTCTAGGCCTGTATGTGAATCAGAGGAAAACGCTT
ATAATTAACCTGCCAGGTAGCAAGAAAGGATCTCAGGAATGCTTTCAATTCATACTGCCAGCTCTACCTC
ATGCCATTGACCTTTTACGTGATGCCATTGTAAAAGTAAAGGAGGTGCATGATGAACTTGAAGATTTGCC
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CAATGTGAGGAAGAGGAAGAAGAGAAGAAAGACAGTGGTGTGCTTCAACAGAAGATAGTTCCTCATCAC
ATATAACTGCAGCAGCCATTGCTGCCAAGAAGCATCCATTCTACACCAGTCTGTGTTGTCATGGCACA
CGGTGAACAGCCCATCCCTGGTCTCATCAATTATTTCCCATCATTCAACAGATGAACGGATTCCAGACTCC
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CAGCAAGGAGAACATTCTCAGAGCCAGTCACAGTGCTGTGATATCACCAGGTGGCTAGAAGACATCGC
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TTTACCCCTTCCCAGCATCAGTAAAAGATGGCTATGCTGTCCGAGCTGCTGATGGCCAGGAGATCGT
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TTACAACAGGTGCTCCAATACCCTGCGGTGCTGATGCAGTAGTACAAGTGAAGATACCGAACTTATCAG
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AGATTGGTCTTGGCAACTGTAGGTGTCACAGAGTTGAAGTTAATAAGTTTCCAGTGGTTGCAGTCAT
GTCAACAGGGAATGAGCTGCTAAATCCTGAAGATGACCTTACCAGGGAAGATTCGAGACAGCAATCGT
TCAACTTCTAGCAACAATTCAGGAACATGGTTACCCACGATCAACTGGGTATTGTAGGAGACAACC
CAGATGACTTACTCAATGCCTTGAATGAGGGTATCAGTCGTGCTGATGTCATCATCACATCAGGGGGTGT
ATCCATGGGGGAAAAGGACTATCTCAAGCAGGTGCTGGACATTGATCTTCATGCTCAGATCCATTTTGGC
AGGGTTTTTATGAAACCAGGCTTCCAACAACATTTGCAACTTTGGATATTGATGGTGAAGAAAAATAA
TCTTTGCACTACCTGGGAATCCTGTATCGGCTGTGGTCACCTGCAATCTCTTTGTTGTGCCTGCACTGAG
GAAAATGCAGGGCATCTGGATCCTCGGCCAACCATCATCAAAGCAAGTTATCATGTGATGTA AAAACTT
GATCCTCGTCCAGAATACCATCGGTGTACTA AACTTGGCATACCAAGAACCACTACCTTGGGCACAGA
GTACAGGTAATCAAATGAGCAGCCGTCTGATGAGCATGCCAGTGCCAAATGGATTGTTGATGCTACCTCC
AAAGACAGAACAGTACGTGGAGCTCCACAAAGGCGAGGTGGTGGATGTCATGGTCATTGGACGGCTAACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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](#)

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_020806.3](#)

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

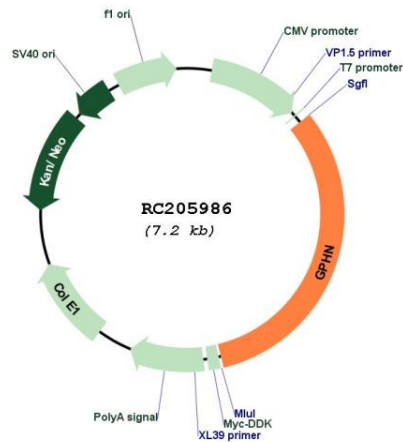
Protein Families: Druggable Genome

MW: 83.4 kDa

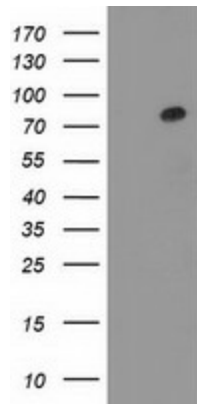
Gene Summary:

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]

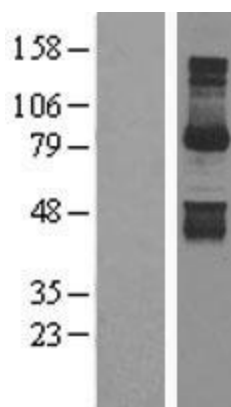
Product images:



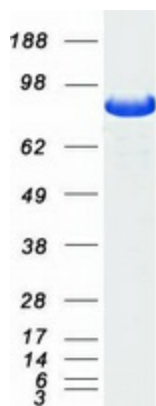
Circular map for RC205986



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GPHN (Cat# RC205986, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GPHN (Cat# [TA502247]). Positive lysates [LY402806] (100ug) and [LC402806] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402806]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205986 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GPHN protein (Cat# [TP305986]). The protein was produced from HEK293T cells transfected with GPHN cDNA clone (Cat# RC205986) using MegaTran 2.0 (Cat# [TT210002]).