

# Recombinant Full Length Human GUCY2D Protein, C-Flag-tagged

**Cat. No.** GUCY2D-1540HFL    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant Full Length Human GUCY2D Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | This gene encodes a retina-specific guanylate cyclase, which is a member of the membrane guanylyl cyclase family. Like other membrane guanylyl cyclases, this enzyme has a hydrophobic amino-terminal signal sequence followed by a large extracellular domain, a single membrane spanning domain, a kinase homology domain, and a guanylyl cyclase catalytic domain. In contrast to other membrane guanylyl cyclases, this enzyme is not activated by natriuretic peptides. Mutations in this gene result in Leber congenital amaurosis and cone-rod dystrophy-6 diseases. |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Molecular Mass</b>   | 119.9 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>AA Sequence</b>      | MTACARRAGGLPDPGLCGPAWWAPSLPRLPRALPRLPLLLLLLLLLQPPALSAVFTVG<br>VLGPWACDPIFSR ARPDLAARLAAARLNRPGLAGGPRFEVALLPEPCRTPGSLGA<br>VSSALARVSGLVGPVNPAACRPAELLA EEAGIALVPWGCPWTQAEGTTAPAVTPAA<br>DALYALLRAFGWARVALVTAPQDLWVEAGRSLSTALRARGL PVASVTSMEPLDLSG<br>AREALRKVRDGPRTAVIMVMHSVLLGGEEQRYLLEAAEELGLTDGSLVFLPFDT IH                                                                                                                                                                                                                                                               |

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YALSPGPEALAAALANSSQLRRAHDAVLTLTRHCPSEGSVLDLRRRAQERRELPDDL  
 NLQQVSPPLFGTI YDAVFLARGVAEAAAAAGGRWVSGAAVARHIRDAQVPGFCGD  
 LGGDEEPPFVLLDTDAAGDRLFATYML DPARGSFLSAGTRMHFPRGGSAPGPDPS  
 CWFDPNNICGGGLEPGLVFLGFLLVGMGLAGFLAHYVRHR LLHMQMVSGPNKII  
 LTVDDITFLPHGGTSRKVAQGSRSSLGARSMSDIRSGPSQHLDSPNIGVYEGDRV  
 WLKKFPGDQHIAIRPATKTAFSKLQELRHENVALYLGLFLARGAEGPAALWEGNLAV  
 VSEHCTRGSQDL LAQREIKLDWMFKSSLLLDLIKIRYLHHRGVAHGRLKSRNCIV  
 DGRFVLKITDHGHGRLLAQKVLPEP PRAEDQLWTAPELLRDPALERRGTLAGDVF  
 SLAIIMQEVVCRSAPYAMLELTPEEVVQVRVSPPLCRPL VSMDQAPVECILLMKQC  
 WAEQPELRPSMDHTFDLKNINKGRKTNIDSMRLMLEQYSSNLEDLIRERTE EEL  
 EKQKTDRLLTQMLPPSVAEALKTGTPVEPEYFEQVTLYFSDIVGFTTISAMSEPIEVV  
 DLLNDLYT LFDIIGSHDVYKVETIGDAYMVASGLPQRNGQRHAAEIANMSLDILSAV  
 GTFMRMHMPEVPVRIRIGLH SGPCVAGVVGLTMPRYCLFGDTVNTASRMESTGLP  
 YRIHVNLSTVGILRALDSGYQVELRGRTELKKGKA  
 EDTFWLVGRRGFNKPIPKPPDLQPGSSNHGSLQEIPPERRRKLEKARPGQFSTRTR  
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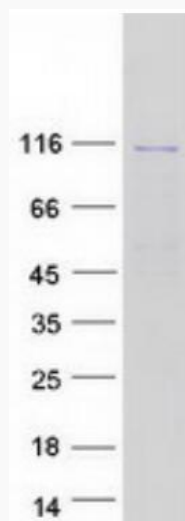
|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>           | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                  |
| <b>Stability</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>          | Store at -80 centigrade.                                                                                                                      |
| <b>Concentration</b>    | >50 ug/mL as determined by microplate BCA method.                                                                                             |
| <b>Preparation</b>      | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                              |
| <b>Protein Families</b> | Druggable Genome, Protein Kinase, Transmembrane                                                                                               |

|                         |                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Protein Pathways</b> | Olfactory transduction, Purine metabolism                                                               |
| <b>Full Length</b>      | Full L.                                                                                                 |
| <b>GENE INFORMATION</b> |                                                                                                         |
| <b>Gene Name</b>        | GUCY2D guanylate cyclase 2D, retinal [ Homo sapiens (human) ]                                           |
| <b>Official Symbol</b>  | GUCY2D                                                                                                  |
| <b>Synonyms</b>         | LCA; CG-E; CYGD; LCA1; RCD2; CACD1; CORD5; CORD6; GUC2D; ROSGC; retGC; CSNB1I; GUC1A4; RETGC-1; ROS-GC1 |
| <b>Gene ID</b>          | 3000                                                                                                    |
| <b>mRNA Refseq</b>      | NM_000180.4                                                                                             |
| <b>Protein Refseq</b>   | NP_000171.1                                                                                             |
| <b>MIM</b>              | 600179                                                                                                  |
| <b>UniProt ID</b>       | Q02846                                                                                                  |

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Coomassie blue staining of purified GUCY2D protein.

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