

Product datasheet for **RC222005L3V**

GTP cyclohydrolase 1 (GCH1) (NM_001024070) Human Tagged ORF Clone Lentiviral Particle

Product data:

| | |
|---------------------------|--|
| Product Type: | Lentiviral Particles |
| Product Name: | GTP cyclohydrolase 1 (GCH1) (NM_001024070) Human Tagged ORF Clone Lentiviral Particle |
| Symbol: | GCH1 |
| Synonyms: | DYT5; DYT5a; DYT14; GCH; GTP-CH-1; GTPCH1; HPABH4B |
| Mammalian Cell Selection: | Puromycin |
| Vector: | pLenti-C-Myc-DDK-P2A-Puro (PS100092) |
| Tag: | Myc-DDK |
| ACCN: | NM_001024070 |
| ORF Size: | 699 bp |
| ORF Nucleotide Sequence: | The ORF insert of this clone is exactly the same as(RC222005). |
| 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. |
| RefSeq: | NM_001024070.1 |
| RefSeq Size: | 1940 bp |
| RefSeq ORF: | 702 bp |
| Locus ID: | 2643 |
| UniProt ID: | P30793 |
| Cytogenetics: | 14q22.2 |
| Protein Families: | Druggable Genome |
| Protein Pathways: | Folate biosynthesis, Metabolic pathways |



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MW: 25.6 kDa

Gene Summary: This gene encodes a member of the GTP cyclohydrolase family. The encoded protein is the first and rate-limiting enzyme in tetrahydrobiopterin (BH4) biosynthesis, catalyzing the conversion of GTP into 7,8-dihydroneopterin triphosphate. BH4 is an essential cofactor required by aromatic amino acid hydroxylases as well as nitric oxide synthases. Mutations in this gene are associated with malignant hyperphenylalaninemia and dopa-responsive dystonia. Several alternatively spliced transcript variants encoding different isoforms have been described; however, not all variants give rise to a functional enzyme. [provided by RefSeq, Jul 2008]