

Product datasheet for **RC202893L2V**

GTP cyclohydrolase 1 (GCH1) (NM_000161) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	GTP cyclohydrolase 1 (GCH1) (NM_000161) Human Tagged ORF Clone Lentiviral Particle
Symbol:	GTP cyclohydrolase 1
Synonyms:	DYT5; DYT5a; DYT14; GCH; GTP-CH-1; GTPCH1; HPABH4B
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
Tag:	mGFP
ACCN:	NM_000161
ORF Size:	753 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC202893).
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_000161.2
RefSeq Size:	2941 bp
RefSeq ORF:	753 bp
Locus ID:	2643
UniProt ID:	P30793
Cytogenetics:	14q22.2
Domains:	GTP_cyclohydrol
Protein Families:	Druggable Genome



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Protein Pathways: Folate biosynthesis, Metabolic pathways

MW: 27.9 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]