

## Recombinant Human GCH1 Protein, His-tagged

Cat. No. GCH1-801H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human GCH1 fused with His tag at N-terminal was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	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.
<b>Form</b>	25mM Tris, pH8.0, 150 mM NaCl, 10% glycerol, 1 % Sarkosyl.
<b>Molecular Mass</b>	27.7 kDa
<b>Purity</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Concentration</b>	>50 ug/mL as determined by microplate BCA method

### GENE INFORMATION

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Gene Name</b>	GCH1 GTP cyclohydrolase 1 [ Homo sapiens ]
<b>Official Symbol</b>	GCH1
<b>Synonyms</b>	GCH1; GTP cyclohydrolase 1; dystonia 14 , DYT5, DYT14, GCH; dopa responsive dystonia; DYT5a; GTPCH1; GTP-CH-I; dystonia 14; GTP cyclohydrolase I; guanosine 5-triphosphate cyclohydrolase I; GCH; DYT5; DYT14; HPABH4B; GTP-CH-1;
<b>Gene ID</b>	2643
<b>mRNA Refseq</b>	NM_001024070
<b>Protein Refseq</b>	NP_001019241
<b>MIM</b>	600225
<b>UniProt ID</b>	P30793

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