

# Recombinant Full Length Human GCH1 Protein, GST-tagged

**Cat. No.** GCH1-5170HF    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Human GCH1 full-length ORF ( AAH25415.1, 1 a.a. - 250 a.a.) recombinant protein with GST-tag at N-terminal.
<b>Species</b>	Human
<b>Source</b>	In Vitro Cell Free System
<b>ProteinLength</b>	250 amino acids
<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. [provided by RefSeq]
<b>Molecular Mass</b>	53.24 kDa
<b>AA Sequence</b>	MEKGPVRAPAEKPRGARCSNGFPERDPPRPGPSRPAEKPPRPEAKSAQPADGWK GERPRSEEDNELNLPNLAAAYSSILSSLGENPQRQGLLKTPWRAASAMQFFTKGYQ ETISDVLNDAIFDEDHDEMIVKIDIDMFMSCEHHLVPPFVGKVVHIGYLPNKQVLGLSKL ARIVEIYSRRLQVQERLTKQIAVAITEALRPAGVGVVVEATHMCMVMRGVQKMNSKT VTSTMLGVFREDPKTREEFLTLIRS

 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>Applications</b>	Enzyme-linked Immunoabsorbent Assay Western Blot (Recombinant protein) Antibody Production Protein Array
<b>Notes</b>	Best use within three months from the date of receipt of this protein.
<b>Storage</b>	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.
<b>Storage Buffer</b>	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

## GENE INFORMATION

<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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