



# Recombinant Human GTP cyclohydrolase 1 (GCH1)

<b>Product Code</b>	CSB-EP009317HU
<b>Storage</b>	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
<b>Uniprot No.</b>	P30793
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	>85% (SDS-PAGE)
<b>Sequence</b>	MEKGPVRAPA EKPRGARCSN GFPERDPPRP GPSRPAEKPP RPEAKSAQPA DGWKGERPRS EEDNELNLPN LAAAYSSILS SLGENPQRQG LLKTPWRAAS AMQFFTKGYQ ETISDVLNDA IFDEDHDEMIVKIDIDMFSM CEHHLVFPVG KVHIGYLPNK QVLGLSKLAR IVEIYSRRLQ VQERLTKQIA VAITEALRPA GVGVVVEATH MCMVMRGVQK MNSKTVTSTM LGVFREDPKT REEFLTLIRS
<b>Source</b>	E.coli
<b>Target Names</b>	GCH1
<b>Protein Names</b>	Recommended name: GTP cyclohydrolase 1 EC= 3.5.4.16 Alternative name(s): GTP cyclohydrolase I Short name= GTP-CH-I
<b>Expression Region</b>	1-250
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	Tag type will be determined during the manufacturing process.
<b>Protein Length</b>	Full length protein
<b>Target Details</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>Reconstitution</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
<b>Shelf Life</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.



Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.