Recombinant Human GTP cyclohydrolase 1 (GCH1)

Product Code	CSB-BP009317HU
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P30793
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	>85% (SDS-PAGE)
Sequence	MEKGPVRAPA EKPRGARCSN GFPERDPPRP GPSRPAEKPP RPEAKSAQPA DGWKGERPRS EEDNELNLPN LAAAYSSILS SLGENPQRQG LLKTPWRAAS AMQFFTKGYQ ETISDVLNDA IFDEDHDEMV IVKDIDMFSM CEHHLVPFVG KVHIGYLPNK QVLGLSKLAR IVEIYSRRLQ VQERLTKQIA VAITEALRPA GVGVVVEATH MCMVMRGVQK MNSKTVTSTM LGVFREDPKT REEFLTLIRS
Source	Baculovirus
Target Names	GCH1
Protein Names	Recommended name: GTP cyclohydrolase 1 EC= 3.5.4.16 Alternative name(s): GTP cyclohydrolase I Short name= GTP-CH-I
Expression Region	1-250
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full length protein
Target Details	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.
Reconstitution	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.
Shelf Life	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.