

## Product datasheet for **TA810265S**

### GTP cyclohydrolase 1 (GCH1) Mouse Monoclonal Antibody [Clone ID: OTI5A1]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI5A1
Applications:	IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:500
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human GCH1 (NP_001019195) produced in E.coli.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	27.7 kDa
Gene Name:	GTP cyclohydrolase 1
Database Link:	<a href="#">NP_001019195</a> <a href="#">Entrez Gene 14528 Mouse</a> <a href="#">Entrez Gene 29244 Rat</a> <a href="#">Entrez Gene 2643 Human</a> <a href="#">P30793</a>



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**Background:**

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]

**Synonyms:**

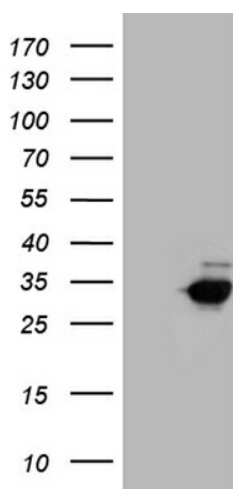
DYT5; DYT5a; DYT14; GCH; GTP-CH-1; GTPCH1; HPABH4B

**Protein Families:**

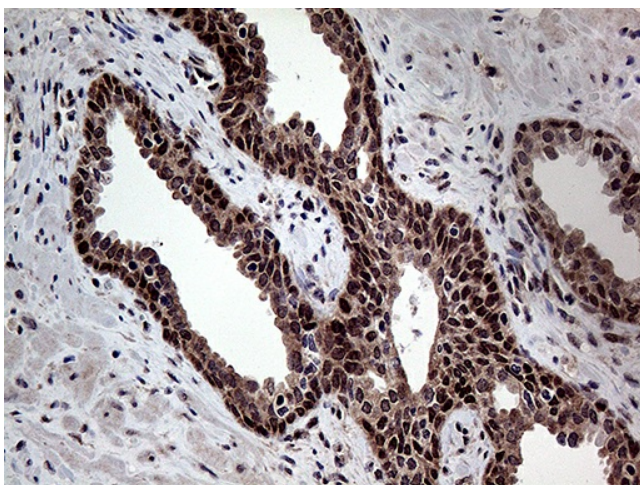
Druggable Genome

**Protein Pathways:**

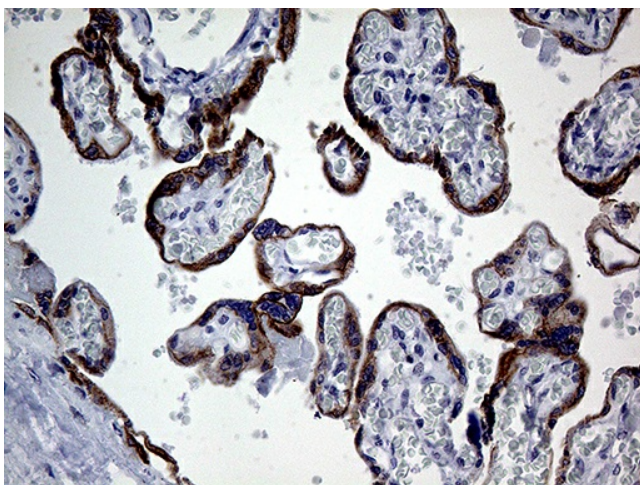
Folate biosynthesis, Metabolic pathways

**Product images:**

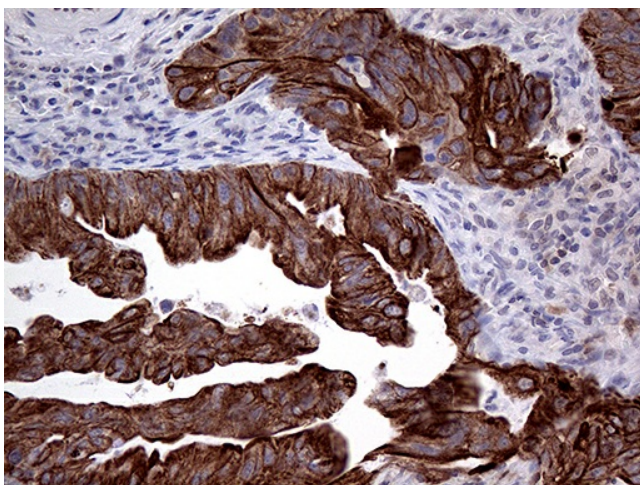
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY GCH1 (Cat# [RC224968], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-GCH1 (Cat# [TA810265])(1:2000). Positive lysates [LY422611] (100ug) and [LC422611] (20ug) can be purchased separately from OriGene.



Immunohistochemical staining of paraffin-embedded Human skin tissue within the normal limits using anti-GCH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA810265]) (1:500)



Immunohistochemical staining of paraffin-embedded Human placenta tissue within the normal limits using anti-GCH1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.5) at 120°C for 3min, [TA810265]) (1:500)



Immunohistochemical staining of paraffin-embedded Human spleen carcinoma tissue within the normal limits using anti-GCH1 mouse monoclonal antibody (1:500).