

## Product datasheet for **TA323417**

### GTP cyclohydrolase 1 (GCH1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: Human fetal liver tissue IHC: 5-20 Positive control: Human breast cancer Predicted cell location: Cytoplasm
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to a region derived from 51-64 amino acids of human GTP cyclohydrolase 1
Formulation:	PBS pH7.3, 0.05% NaN <sub>3</sub> , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	28 kDa
Gene Name:	GTP cyclohydrolase 1
Database Link:	<a href="#">NP_001019242</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.

**Synonyms:**

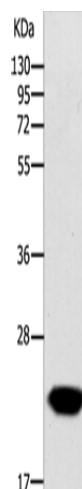
DYT5; DYT5a; DYT14; GCH; GTP-CH-1; GTPCH1; HPABH4B

**Protein Families:**

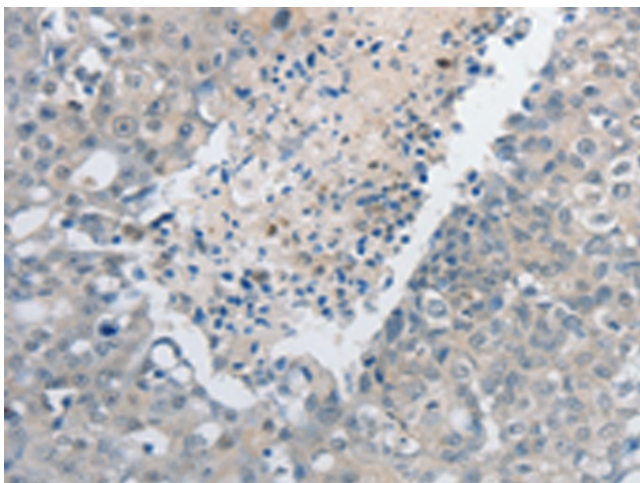
Druggable Genome

**Protein Pathways:**

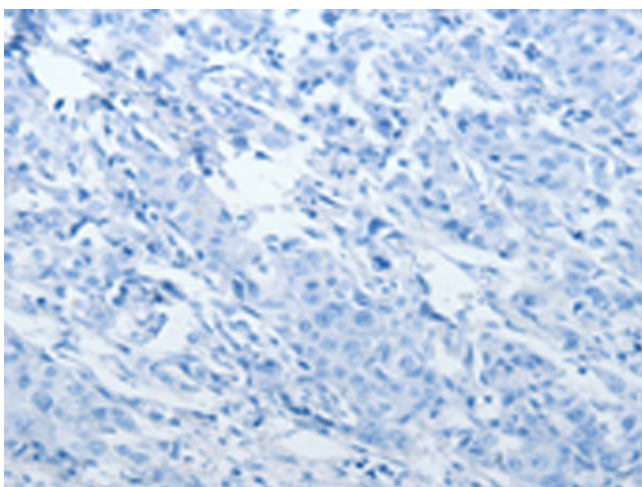
Folate biosynthesis, Metabolic pathways

**Product images:**

Gel: 12%SDS-PAGE  
Lysate: 60 µg  
Lane: Human fetal liver tissue  
Primary antibody: TA323417 (GCH1 Antibody) at dilution 1/200  
Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution  
Exposure time: 15 seconds



Immunohistochemistry of paraffin-embedded Human breast cancer tissue using TA323417 (GCH1 Antibody) at dilution 1/15 (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human breast cancer tissue using TA323417 (GCH1 Antibody) at dilution 1/15, treated with synthetic peptide. (Original magnification:  $\times 200$ )