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GCH1 Antibody (monoclonal) (M03)

Mouse monoclonal antibody raised against a full length recombinant GCH1.
Catalog # AT2175a

Product Information

Application	IF, E
Primary Accession	P30793
Other Accession	BC025415
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	1F5
Calculated MW	27903

Additional Information

Gene ID	2643
Other Names	GTP cyclohydrolase 1, GTP cyclohydrolase I, GTP-CH-I, GCH1, DYT5, GCH
Target/Specificity	GCH1 (AAH25415.1, 1 a.a. ~ 250 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	GCH1 Antibody (monoclonal) (M03) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

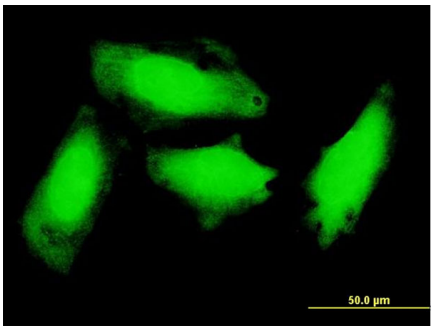
This gene encodes a member of the GTP cyclohydrolase family. The encoded protein is the first and rate-limiting enzyme in tetrahydrobiopterin (BH4) biosynthesis, catalyzing the conversion of GTP into 7,8-dihydroneopterin triphosphate. BH4 is an essential cofactor required by aromatic amino acid hydroxylases 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.

References

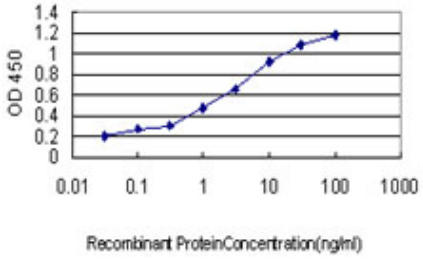
Different SNP combinations in the GCH1 gene and use of labor analgesia. Dabo F, et al. Mol Pain, 2010 Jul

15. PMID 20633294.Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.Exploring epistatic relationships of NO biosynthesis pathway genes in susceptibility to CHD. Tu YC, et al. Acta Pharmacol Sin, 2010 Jul. PMID 20581851.Four novel mutations in the GCH1 gene of Chinese patients with dopa-responsive dystonia. Cao L, et al. Mov Disord, 2010 Apr 30. PMID 20437540.Cardiac myocyte-specific overexpression of human GTP cyclohydrolase I protects against acute cardiac allograft rejection. Ionova IA, et al. Am J Physiol Heart Circ Physiol, 2010 Jul. PMID 20418482.

Images



Immunofluorescence of monoclonal antibody to GCH1 on HeLa cell . [antibody concentration 10 ug/ml]



Detection limit for recombinant GST tagged GCH1 is approximately 0.1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.