CRYM Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	CRYM, Monoclonal Antibody
Full Product Name	CRYM (Thiomorpholine-carboxylate Dehydrogenase, Mu-crystallin Homolog, NADP-regulated Thyroid-hormone-binding Protein, Ketimine Reductase, THBP) (MaxLight 650)
Product Gene Name	anti-CRYM antibody
Clonality	Monoclonal
Isotype	IgG1,k
Clone Number	6B3
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight650.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human CRYM.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight650 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	35.9 kDa (334aa), confirmed by MALDI-TOF
OMIM	123740
3D Structure	ModBase 3D Structure for Q14894
Immunogen	Partial recombinant corresponding to aa215-314 from human CRYM (NP_001879) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	EWVKPGAHINAVGASRPDWRELDDELMKEAVLYVDSQEAALKESGDVLLSGAEIFAELGEVIKGVKPAHCEKTTVFKSLGMAVEDTVAAKLIYDSWSSGK
Conjugate	MaxLight650
Product Categories/Family for anti-CRYM antibody	Antibodies; Enzymes; Dehydrogenase
Applications Tested/Suitable for anti-CRYM antibody	FLISA, Immunohistochemistry (IHC) Paraffin, Immunoprecipitation (IP), Western Blot (WB)
Application Notes for anti-CRYM antibody	IHC-P: 3ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-CRYM antibody	MBS6221656 is an antibody targeting CRYM. Also known as CRYM (Thiomorpholine-carboxylate Dehydrogenase, Mu-crystallin Homolog, NADP-regulated Thyroid-hormone-binding Protein, Ketimine Reductase, THBP) (MaxLight 650). Reactive in Human. Host: Mouse.

Product References and Citations for anti-CRYM antibody	1. The FSHD Atrophic Myotube Phenotype Is Caused by DUX4 Expression. Vanderplanck C, Ansseau E, Charron S, Stricwant N, Tassin A, Laoudj-Chenivesse D, Wilton SD, Coppee F, Belayew A.PLoS One. 2011;6(10):e26820. Epub 2011 Oct 28. 2. Proteomic Analysis Illuminates a Novel Structural Definition of the Claustrum and Insula. Mathur BN, Caprioli RM, Deutch AY.Cereb Cortex. 2009 Oct;19(10):2372-9. Epub 2009 Jan 23. 3. Abnormal expression of mu-crystallin in facioscapulohumeral muscular dystrophy. Reed PW, Corse AM, Porter NC, Flanigan KM, Bloch RJ.Exp Neurol. 2007 Jun;205(2):583-6. Epub 2007 Mar 21.
Other Notes	Small volumes of anti-CRYM antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CRYM. It may not necessarily be applicable to this product.

NCBI GI #	4503065
NCBI GeneID	1428
NCBI Accession #	NP_001879
UniProt Primary Accession #	Q14894
UniProt Secondary Accession #	Q5HYB7; D5MNX0
UniProt Related Accession #	Q14894
GenBank Nucleotide #	NM_001888
NCBI Official Full Name	ketimine reductase mu-crystallin
NCBI Official Synonym Full Names	crystallin mu
NCBI Official Symbol	CRYM
NCBI Official Synonym Symbols	THBP; DFNA40
UniProt Protein Name	Ketimine reductase mu-crystallin
UniProt Synonym Protein Names	NADP-regulated thyroid-hormone-binding protein
Protein Family	Ketimine reductase
UniProt Gene Name	CRYM
UniProt Synonym Gene Names	THBP
UniProt Entry Name	CRYM_HUMAN
NCBI Protein Information	ketimine reductase mu-crystallin
NCBI Summary for CRYM	Crystallins are separated into two classes: taxon-specific and ubiquitous. The former class is also called phylogenetically-restricted crystallins. The latter class constitutes the major proteins of vertebrate eye lens and maintains the transparency and refractive index of the lens. This gene encodes a taxon-specific crystallin protein that binds NADPH and has sequence similarity to bacterial ornithine cyclodeaminases. The encoded protein does not perform a structural role in lens tissue, and instead it binds thyroid hormone for possible regulatory or developmental roles. Mutations in this gene have been associated with autosomal dominant non-syndromic deafness. [provided by RefSeq, Sep 2014]

UniProt Comments for CRYM	CRYM: Specifically catalyzes the reduction of imine bonds in brain substrates that may include cystathionine ketimine (CysK) and lanthionine ketimine (LK). Binds thyroid hormone which is a strong reversible inhibitor. Presumably involved in the regulation of the free intracellular concentration of triiodothyronine and access to its nuclear receptors. Belongs to the ornithine cyclodeaminase family. Protein type: Lyase; EC 1.5.1.25 Chromosomal Location of Human Ortholog: 16p12.2 Cellular Component: mitochondrion; cytoplasm; nucleus Molecular Function: thiomorpholine-carboxylate dehydrogenase activity; protein homodimerization activity; NADP binding; transcription corepressor activity Biological Process: sensory perception of sound; negative regulation of transcription from RNA polymerase II promoter; thyroid hormone metabolic process Disease: Deafness, Autosomal Dominant 40
Research Articles on CRYM	**1.** These findings confirm that, mechanistically, ketimine reductase/CRYM acts as a classical imine reductase and may explain the finding of bound pyruvate in the crystallized protein.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/monoclonal-human-antibody/crym/6221656