

## Mu-crystallin Homolog

Human, CRYM

Expressed in *E.Coli*

Cat. No. CBCRY14

Lot. No. (See product label)

### BACKGROUND

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. Multiple alternatively spliced transcript variants have been found for this gene.

### MOLECULAR DESCRIPTION

**Protein classification:** Oxidoreductase

**Structure Weight:** 68589.65 Da

**Polymer:** 1

**Molecule:** Mu-crystallin homolog

**Chains:** A, B

**Type:** polypeptide (L)

**Chain Length:** 312 amino acids

### CRYSTAL INFORMATION

**PDB ID:** [2I99](#)

**MMDB ID:** [44495](#)

**Source:** E.Coli

**Method:** X-Ray Diffraction

**Resolution:** 2.6 Å

**Ligand Chemical Component:** NAD

### FOR RESEARCH USE ONLY

### CRYSTAL STRUCTURE



### GENE INFORMATION

**Gene Name:** [CRYM](#)

**Synonyms:** DFNA40; THBP; NADP-regulated thyroid-hormone binding protein; OTTHUMP00000115878; dfna40; crystallin mu; Mu-crystallin homolog

**UniProt ID:** [Q14894](#)

**GeneID:** [1428](#)

**Chromosome Location:** 16p13.11-p12.3

**Function:** NADP or NADPH binding; catalytic activity; thyroid hormone binding; transcription corepressor activity

### PRIMARY CITATION

Cheng, Z., Sun, L., He, J., Gong, W. (2007) Crystal structure of human {micro}-crystallin complexed with NADPH *Protein Sci.* 16: 329-335

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