

## Product datasheet for RC218123

### mu Crystallin (CRYM) (NM\_001888) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids   |
| Product Name:             | mu Crystallin (CRYM) (NM_001888) Human Tagged ORF Clone           |
| Tag:                      | Myc-DDK   |
| Symbol:                   | mu Crystallin   |
| Synonyms:                 | DFNA40; THBP  |
| Mammalian Cell Selection: | Neomycin  |
| Vector:                   | pCMV6-Entry (PS100001)  |
| E. coli Selection:        | Kanamycin (25 ug/mL)  |
| ORF Nucleotide Sequence:  | >RC218123 ORF sequence<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCCGGGTACCAGCGTTCTGAGCGCGGCCGAGGTGGAGGAACACCTCCGCAGCTCCAGCCTCCTCA  
TCCCGCCTCTAGAGACGGCCCTGGCCAACCTTCCAGCGGTCCCGAAGGAGGGGTCATGCAGCCCGTGCG  
CACCGTGGTGCCGGTGACCAAGCACAGGGGCTACCTGGGGTCATGCCCGCTACAGTGTGCAGAGGAT  
GCACTGACCACCAAGTTGGTACCTTCTACGAGGACCGGCATCACCTCGGTGTCCTTCCCACCAGG  
CTACTGTGCTACTCTTTGAGCCAGCAATGGCACCTGCTGGCGGTGATGGATGGAAATGTCATAACTGC  
AAAGAGAACAGCTGCAGTTTCTGCCATTGCCACCAAGTTTCTGAAACCTCCAGCAGTGAAGTGTGTGC  
ATCCTTGGGGTGGGGTCCAGGCCATACAGCCATTATGAGATCTTACAGAGCAGTTCTCCTTTAAGGAGG  
TGAGGATATGGAACCGCACCAAGAAAATGCAGAGAAGTTTGCAGACACAGTGAAGGAGAGGTACGGGT  
CTGTTCTTCGGTCCAGGAGGCTGTGGCAGGTGCAGATGTGATCATCACAGTCACCCTGGCAACAGAGCCC  
ATTTTGTGGTGAATGGGTGAAGCCAGGGGCTCATCAATGCTGTTGGAGCCAGCAGACCTGACTGGA  
GAGAACTGGATGATGAGCTCATGAAAGAAGCTGTGCTGTACGTGGATTCCAGGAGGCTGCCCTGAAGGA  
GTCTGGAGATGTCCTGCTGTGAGGGCCGAGATCTTTGCTGAGCTGGGAGAAGTGATTAAGGGAGTGAAA  
CCAGCCCACTGTGAGAAGACCACGGTGTCAAGTCTTTGGGAATGGCAGTGAAGACACAGTTGCAGCCA  
AACTCATCTATGATTCTGGTTCATCTGGTAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC218123 protein sequence  
Red=Cloning site Green=Tags(s)

MSRVPAFLSAAVEEHLRSSLIPPLETALANFSSGPEGGMQPVRTVVPVTKHRGYLGVMPAYSAED  
 ALTTKLVTFYEDRGITSVVPSHQATVLLFEPNSGTLAVMDGNVITAKRTAAVSAIATKFLKPPSSEVLC  
 ILGAGVQAYSHYEIFTEQFSFKEVRIWNRTKENAEKFADTVQGEVRCSSVQEAVAGADVITVTLATPEP  
 ILFGEWVKPGAHINAVGASRPDWRELDDELMKEAVLYVDSQEAAALKESGDVLLSGAEIFAEIAGEVIKGVK  
 PAHCEKTTVFKSLGMAVEDTVAAKLIYDSWSSGK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6313\\_f05.zip](https://cdn.origene.com/chromatograms/mk6313_f05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001888

**ORF Size:** 942 bp

**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001888.1](#)

**RefSeq Size:** 1559 bp

**RefSeq ORF:** 945 bp

**Locus ID:** 1428

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

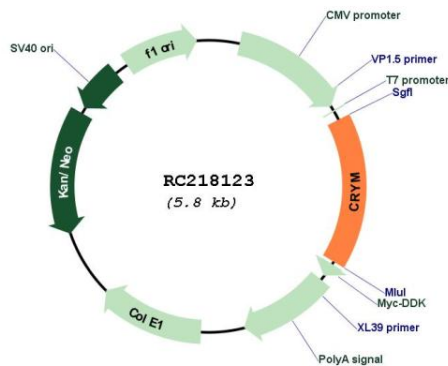
**Cytogenetics:** 16p12.2

**Domains:** ODC\_Mu\_crystall

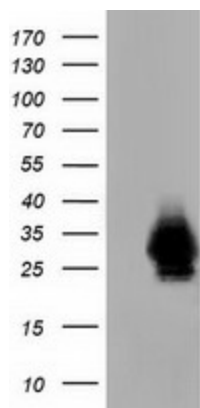
**MW:** 33.8 kDa

**Gene Summary:** 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]

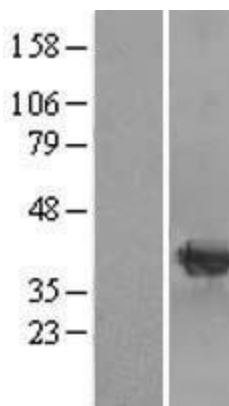
**Product images:**



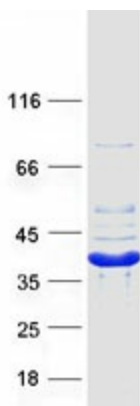
Circular map for RC218123



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CRYM (Cat# RC218123, 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-CRYM (Cat# [TA501483]). Positive lysates [LY419685] (100ug) and [LC419685] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419685]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218123 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CRYM protein (Cat# [TP318123]). The protein was produced from HEK293T cells transfected with CRYM cDNA clone (Cat# RC218123) using MegaTran 2.0 (Cat# [TT210002]).