

Product datasheet for RC216085

CRYBA2 (NM_005209) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CRYBA2 (NM_005209) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CRYBA2
Synonyms:	crystallin, beta A2; eye lens structural protein
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC216085 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCAGCGCCCCGCGCCGGGCCCGCCAGCCTCACGCTCTGGGACGAGGAGGACTTCCAGG
GCCGTCGCTGTCGGCTGCTAAGCGACTGTGCGAACGTCTGCGAGCGGGAGGCCTGCCAGGGTGCCTC
GGTCAAGGTGAAAACGGCGTTTGGGTGGCCTTTGAGTACCCGACTTCCAGGGACAGCAGTTTATTCTG
GAGAAGGGAGACTATCCTCGCTGGAGCGCTGGAGTGGCAGCAGCAGCCACAACAGCAACCAGCTGCTGT
CCTTCCGGCCAGTCTCTGCGCAACCACAATGACAGCCGTGTGACACTGTTTGAGGGGGACAACCTCCA
AGGCTGCAAGTTTGACCTCGTTGATGACTACCCATCCCTGCCCTCCATGGGCTGGCCAGCAAGGATGTG
GGTTCCCTCAAAGTCAGCTCCGGAGCGTGGGTGGCTACCCAGGCTACCGAGGCTACCCAGTATG
TGTTGGAGCGGGACCGGCACAGCGGAGAGTTCTGTACTTACGGTGTGAGCTCGGCACACAGGCCACACTGG
GCAGCTGCAGTCCATCCGGAGAGTCCAGCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC216085 protein sequence Red=Cloning site Green=Tags(s)
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MSSAPAPGPAPASLTLWDEEDFQRRRCLLSDCANVCERGGPRVRSVKVENVVWVAFEYPDFQGGQFIL
EKGDYPRWSAWSGSSSHNSNQLLSFRPVLCAHNDNRVTLFEGDNFQGCKFDLVDDYPSLPSMGWASKDV
GSLKVVSSGAWVAYQYPGYRQYVYLERDRHSGEFCTYGELGTQAHTGQLQSIRRVQH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6410_f05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005209

ORF Size: 591 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_005209.1](#), [NP_005200.1](#)

RefSeq Size: 709 bp

RefSeq ORF: 593 bp

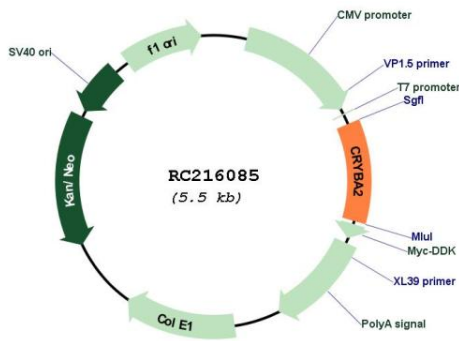
Locus ID: 1412

Cytogenetics: 2q35

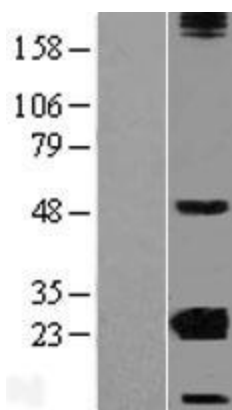
MW: 22.1 kDa

Gene Summary: Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of the vertebrate eye, which function to maintain the transparency and refractive index of the lens. Since lens central fiber cells lose their nuclei during development, these crystallins are made and then retained throughout life, making them extremely stable proteins. Mammalian lens crystallins are divided into alpha, beta, and gamma families; beta and gamma crystallins are also defined as a superfamily. Alpha and beta families are further divided into acidic and basic groups. Seven protein regions exist in crystallins: four homologous motifs, a connecting peptide, and N- and C-terminal extensions. Beta-crystallins, the most heterogeneous, differ by the presence of the C-terminal extension (present in the basic group but absent in the acidic group). Beta-crystallins form aggregates of different sizes and are able to form homodimers through self-association or heterodimers with other beta-crystallins. This gene is a beta acidic group member. Three alternatively spliced transcript variants encoding identical proteins have been reported. [provided by RefSeq, Jul 2008]

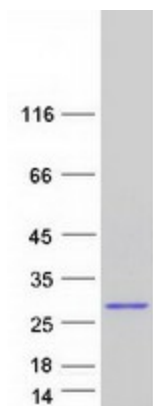
Product images:



Circular map for RC216085



Western blot validation of overexpression lysate (Cat# [LY409256]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC223668] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CRYBA2 protein (Cat# [TP316085]). The protein was produced from HEK293T cells transfected with CRYBA2 cDNA clone (Cat# RC216085) using MegaTran 2.0 (Cat# [TT210002]).