

Product datasheet for **RC224787**

CRYGA (NM_014617) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	CRYGA
Synonyms:	CRY-g-A; CRYGi; CRYG5
Mammalian Cell	Neomycin
Selection:	
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence: >RC224787 representing NM_014617
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGAAGATCACCTTCTACGAGGACCGAGACTTTCAGGGTCGCTGCTACAATTGCATCAGTGACTGCC
CCAACCTGCGGGTCTACTTCAGCCGCTGCAACTCCATCCGAGTAGACAGCGGCTGCTGGATGCTCTATGA
GCGTCCCAATTACGAGGCCACCACTTCTCGCGCCGAGGCAAGTACCCGACTATCAGCACTGGATG
GGCCTCAGCACTCGGTCCAATCCTGCCGTATAATTCCTCATACCACTCGCACAAGTTAAGGCTGTACG
AGAGAGATGACTACCGAGGCCCTTATGTCTGAGCTCACTGATGACTGCGCCTGTGTTCCAGAAGTGTCCG
TCTCCTGAGATCTATTCCCTCCACGTAAGGAGGCTGCTGGGTCTCTATGAAATGCCCAACTACCGG
GGGCGGCAGTATCTGCTGAGGCCTGGGACTACAGAAGGTACCACGACTGGGGGGTGCAGATGCCAAAG
TCGGCTCTTGAGACGGGTCACCGATTGTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224787 representing NM_014617
Red=Cloning site Green=Tags(s)

MGKITFYEDRDFQGRYCNCISDCPNLRVYFSRCNSIRVDSGCWMLYERPNYQGHQYFLRRGKYPDYQHW
GLSDSVQSCRIIPHTSSHLRLYERDDYRGLMSELTDDCACVPELFRLEIYSLHVLEGCVLYEMPNYR
GRQYLLRPGDYRRYHDWGGADAKVGSLLRRVTDLY

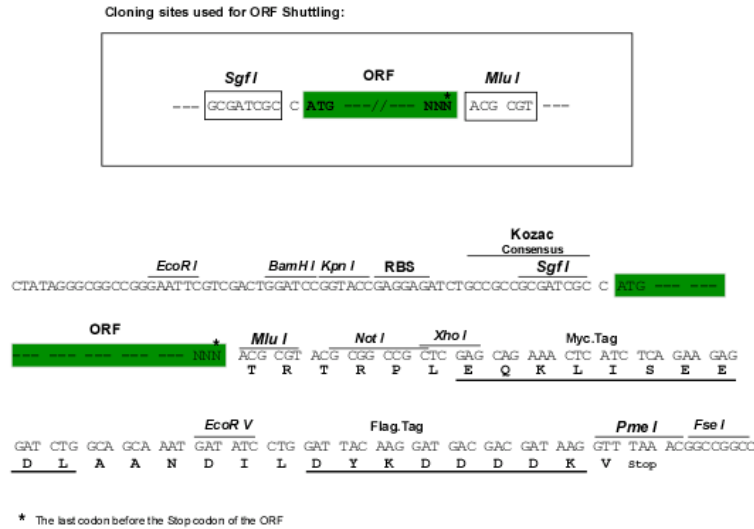
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3637_b01.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014617

ORF Size: 522 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_014617.4](#)

RefSeq Size: 697 bp

RefSeq ORF: 525 bp

Locus ID: 1418

UniProt ID: [P11844](#)

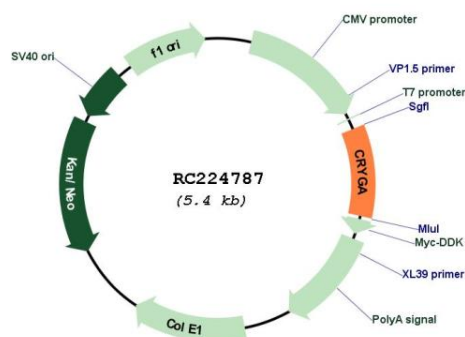
Cytogenetics: 2q33.3

Protein Families: Druggable Genome

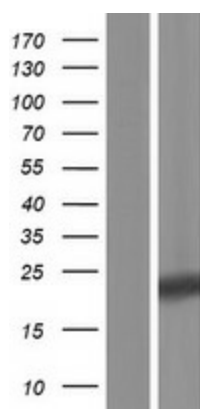
MW: 20.7 kDa

Gene Summary: Crystallins are separated into two classes: taxon-specific, or enzyme, and ubiquitous. The latter class constitutes the major proteins of vertebrate eye lens and maintains 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 considered 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. Gamma-crystallins are a homogeneous group of highly symmetrical, monomeric proteins typically lacking connecting peptides and terminal extensions. They are differentially regulated after early development. Four gamma-crystallin genes (gamma-A through gamma-D) and three pseudogenes (gamma-E, gamma-F, gamma-G) are tandemly organized in a genomic segment as a gene cluster. Whether due to aging or mutations in specific genes, gamma-crystallins have been involved in cataract formation. [provided by RefSeq, Jul 2008]

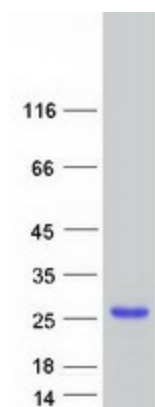
Product images:



Circular map for RC224787



Western blot validation of overexpression lysate (Cat# [LY415169]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224787 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CRYGA protein (Cat# [TP324787]). The protein was produced from HEK293T cells transfected with CRYGA cDNA clone (Cat# RC224787) using MegaTran 2.0 (Cat# [TT210002]).