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# Product datasheet for RC222889

## CRYGD (NM_006891) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | CRYGD (NM_006891) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | CRYGD |
| **Synonyms:** | CACA; CCA3; CCP; cry-g-D; CRYG4; CTRCT4; PCC |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC222889 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGGAAGATCACCCTCTACGAGGACCGGGGCTTCCAGGGCCGCCACTACGAATGCAGCAGCGACCACC
CCAACCTGCAGCCCTACTTGAGCCGCTGCAACTCGGCGCGCGTGGACAGCGGCTGCTGGATGCTCTATGA
GCAGCCCAACTACTCGGGCCTCCAGTACTTCCTGCGCCGCGGCGACTATGCCGACCACCAGCAGTGGATG
GGCCTCAGCGACTCGGTCCGCTCCTGCCGCCTCATCCCCCACTCTGGCTCTCACAGGATCAGACTCTATG
AGAGGGAGGACTACAGAGGCCAGATGATAGAGTTCACTGAGGACTGCTCCTGTCTTCAGGACCGCTTCCG
CTTCAATGAAATCCACTCCCTCAACGTGCTGGAGGGCTCCTGGGTCCTCTACGAGCTGTCCAACTACCGA
GGACGGCAGTACCTGCTGATGCCAGGGGACTATAGGCGCTACCAGGACTGGGGGGCCACGAATGCCAGAG
TGGGCTCTCTGAGGAGAGTCATAGATTTCTCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC222889 protein sequence
Red=Cloning site Green=Tags(s)

MGKITLYEDRGFQGRHYECSSDHPNLQPYLSRCNSARVDSGCWMLYEQPNYSGLQYFLRRGDYADHQQWM
GLSDSVRSCRLIPHSGSHRIRLYEREDYRGQMIEFTEDCSCLQDRFRFNEIHSLNVLEGSWVLYELSNYR
GRQYLLMPGDYRRYQDWGATNARVGSLRRVIDFS

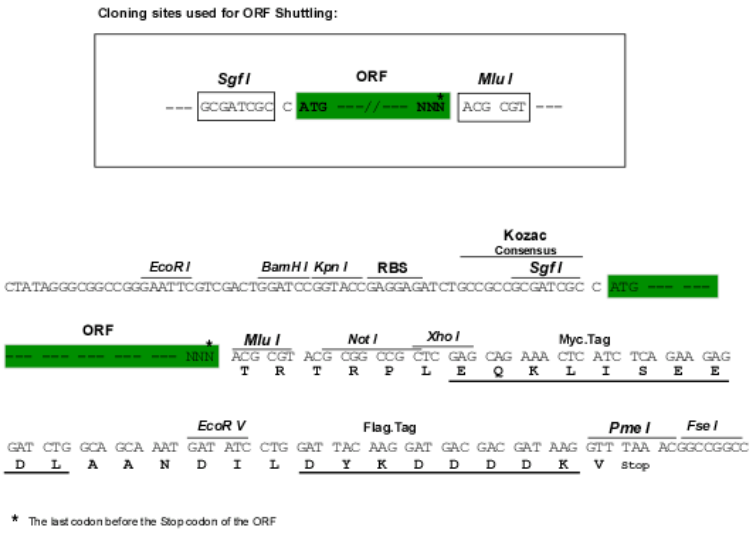
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk6464_c05.zip

View online »

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_006891

**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.

**RefSeq:** NM_006891.2, NP_008822.2

**RefSeq Size:** 724 bp

**RefSeq ORF:** 525 bp

**Locus ID:** 1421

**UniProt ID:** P07320

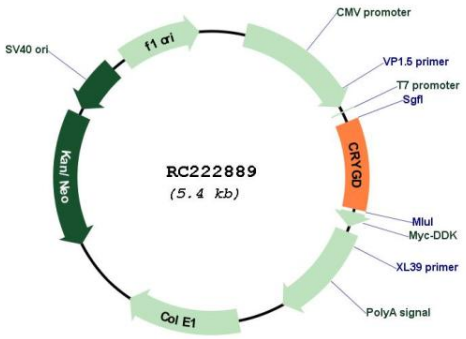
**Cytogenetics:** 2q33.3

**Protein Families:** Druggable Genome

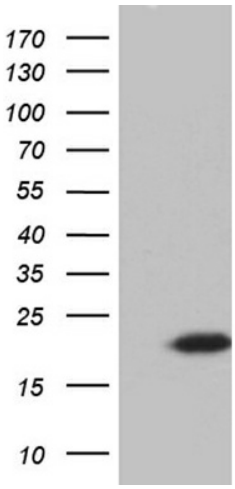
**MW:** 20.7 kDa

**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]

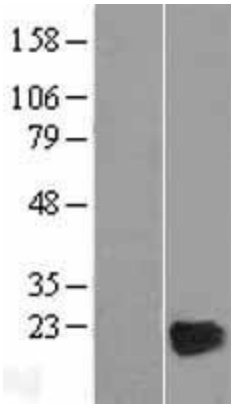
## Product images:



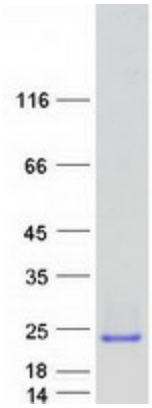

Circular map for RC222889




HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CRYGD (Cat# RC222889, 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-CRYGD(Cat# [TA811958]). Positive lysates [LY416332] (100ug) and [LC416332] (20ug) can be purchased separately from OriGene.




Western blot validation of overexpression lysate (Cat# [LY416332]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222889 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).




Coomassie blue staining of purified CRYGD protein (Cat# [TP322889]). The protein was produced from HEK293T cells transfected with CRYGD cDNA clone (Cat# RC222889) using MegaTran 2.0 (Cat# [TT210002]).