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# Product datasheet for MR228482

## Cryaa (NM_001278569) Mouse Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Cryaa (NM_001278569) Mouse Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | Cryaa |
| **Synonyms:** | Acry; Acry-1; Cry; Crya; Crya-1; Crya1; DAcry; DAcry-1; lop18 |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |
| **Cell Selection:** | Neomycin |
| **ORF Nucleotide Sequence:** | >MR228482 representing NM_001278569<br>Red=Cloning site Blue=ORF Green=Tags(s)<br><br>TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC<br>GCCGCGATCGCC<br><br>ATGGACGTCACCATTCAGCATCCTTGGTTCAAGCGTGCCCTGGGGCCCTTCTACCCCAGCCGACTGTTCG<br>ACCAGTTCTTCGGCGAGGGCCTTTTTGAGTACGACCTGCTGCCCTTCCTGTCTTCCACCATCAGCCCCTA<br>CTACCGCCAGTCCCTCTTCCGCACTGTGCTGGACTCGGGCATCTCTGAGCTCATGACCCATATGTGGTTT<br>GTAATGCACCAACCACATGCTGGAAACCCCAAGAACAACCCCGTCAAGGCAAGTTACATGGCGAAGGTCC<br>GATCTGACCGGGACAAGTTTGTCATCTTCTTGGACGTGAAGCACTTCTCTCCTGAGGACCTCACCGTGAA<br>GGTACTGGAGGATTTTGTGGAGATTCACGGCAAACACAACGAGAGGCAGGATGACCATGGCTACATTTCC<br>CGTGAATTTCACCGTCGCTACCGTCTGCCTTCCAATGTGGACCAGTCCGCCCTCTCCTGCTCCCTGTCTG<br>CGGATGGCATGCTGACCTTCTCTGGCCCCAAGGTCCAGTCCGGTTTGGATGCTGGCCACAGCGAGAGGGC<br>CATTCCTGTGTCACGGGAGGAGAAACCCAGCTCTGCACCCTCGTCC<br><br>ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT<br>ACAAGGATGACGACGATAAGGTTTAA |
| **Protein Sequence:** | >MR228482 representing NM_001278569<br>Red=Cloning site Green=Tags(s)<br><br>MDVTIQHPWFKRALGPFYPSRLFDQFFGEGLFEYDLLPFLSSTISPYYRQSLFRTVLDSGISELMTHMWF<br>VMHQPHAGNPKNNPVKASYMAKVRSDRDKFVIFLDVKHFSPEDLTVKVLEDFVEIHGKHNERQDDHGYIS<br>REFHRRYRLPSNVDQSALSCSLSADGMLTFSGPKVQSGLDAGHSERAIPVSREEKPSSAPSS<br><br>TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Restriction Sites:** | SgfI-MluI |

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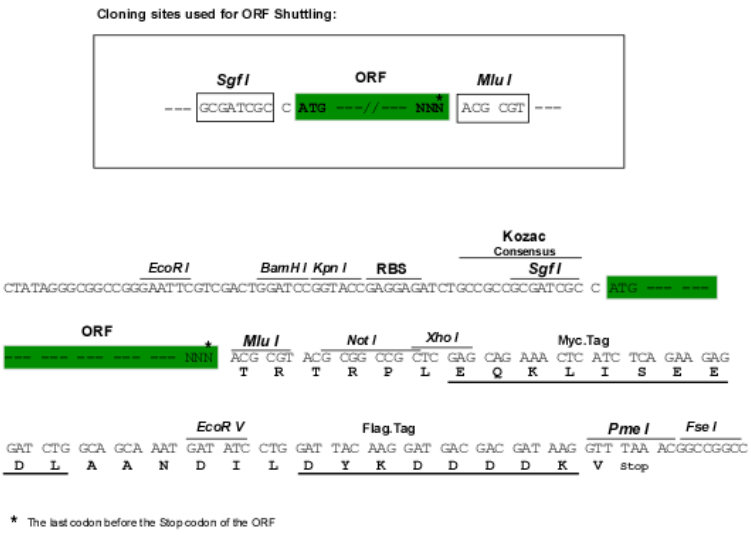
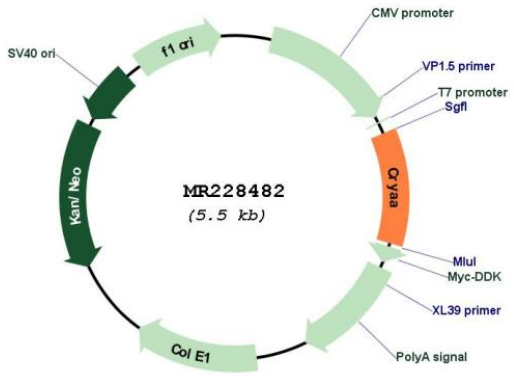
**Cloning Scheme:**




**Plasmid Map:**




**ACCN:** NM_001278569

**ORF Size:** 606 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).

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| **Reconstitution Method:** | 1. Centrifuge at 5,000xg for 5min.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_001278569.1, NP_001265498.1 |
| **RefSeq Size:** | 1214 bp |
| **RefSeq ORF:** | 609 bp |
| **Locus ID:** | 12954 |
| **Cytogenetics:** | 17 17.09 cM |
| **MW:** | 23.6 kDa |
| **Gene Summary:** | This gene encodes subunit a, one of two subunits of alpha-crystallin, which is a high molecular weight, soluble aggregate and is a member of the small heat shock protein (sHSP) family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. It acts as a molecular chaperone and is the major protein in the eye lens, maintaining the transparency and refractive index of the lens. In mouse, deficiency in this gene is associated with smaller lenses and eyes and with increasing lens opacity with age. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014] |