

## Product datasheet for RC202718L2

#### OriGene Technologies, Inc.

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### Alpha B Crystallin (CRYAB) (NM\_001885) Human Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Alpha B Crystallin (CRYAB) (NM\_001885) Human Tagged Lenti ORF Clone

Tag: mGFP

Symbol: Alpha B Crystallin

Synonyms: CMD1II; CRYA2; CTPP2; CTRCT16; HEL-S-101; HSPB5; MFM2

Mammalian Cell None

Selection:

Vector: pLenti-C-mGFP (PS100071)

**E. coli Selection:** Chloramphenicol (34 ug/mL)

**ORF Nucleotide** 

The ORF insert of this clone is exactly the same as(RC202718).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

**ACCN:** NM\_001885

ORF Size: 525 bp



#### Alpha B Crystallin (CRYAB) (NM\_001885) Human Tagged Lenti ORF Clone - RC202718L2

**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:** <u>NM 001885.1</u>

 RefSeq Size:
 998 bp

 RefSeq ORF:
 528 bp

 Locus ID:
 1410

 UniProt ID:
 P02511

 Cytogenetics:
 11q23.1

**Domains:** HSP20, crystallin

MW: 20.2 kDa

**Gene Summary:** Mammalian lens crystallins are divided into alpha, beta, and gamma families. Alpha crystallins

Alpha crystallins can be induced by heat shock and are members of the small heat shock protein (HSP20) family. They act as molecular chaperones although they do not renature proteins and release them in the fashion of a true chaperone; instead they hold them in large soluble aggregates. These heterogeneous aggregates consist of 30-40 subunits; the alpha-A and alpha-B subunits have a 3:1 ratio, respectively. Two additional functions of alpha crystallins are an autokinase activity and participation in the intracellular architecture. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Alpha-A and alpha-B gene products are differentially expressed; alpha-A is preferentially restricted to the lens and alpha-B is expressed widely in

are composed of two gene products: alpha-A and alpha-B, for acidic and basic, respectively.

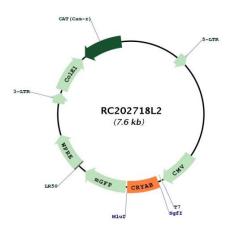
many tissues and organs. Elevated expression of alpha-B crystallin occurs in many

neurological diseases; a missense mutation cosegregated in a family with a desmin-related myopathy. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan

2019]



# **Product images:**



Circular map for RC202718L2