

**StressXpress®
Alpha-B
Crystallin
ELISA Kit****91 /100 6 Citations**

Powered by Bioz

See more det.



Discovery through Partnership | Excellence through Quality

Colorimetric detection of Alpha B Crystallin
Catalog No. SKT-123

Product Name

Alpha-B Crystallin ELISA Kit

Description

Colorimetric detection of Alpha B Crystallin

Species Reactivity

Human

Platform

Microplate

Sample Types

Cell lysates, Serum, Tissue

Detection Method

Colorimetric Assay

Assay Type

Sandwich ELISA (Enzyme-linked Immunosorbent Assay)

Utility

ELISA kit used to quantitate alpha B crystallin concentration in samples.

Sensitivity

0.009 ng/ml

Assay Range

0.352 - 22.5 ng/ml

Incubation Time

30 minutes

Number Of Samples

40 samples in duplicate

Other Resources

Kit Booklet Lot No. SA847285 , Kit Booklet Lot No. SA222909 , Kit Booklet Lot No. SA388800 , Kit booklet Lot No. SA287484 , Kit Booklet , MSDS

Field Of Use

Not for use in humans. Not for use in diagnostics or therapeutics. For in vitro research use only.

Properties

Storage Temperature

4°C and -20°C

Shipping Temperature

Blue Ice

Product Type

ELISA Kits

Assay Overview

1. Prepare Standard and samples in Standard and Sample Diluent. 2. Add 100 µL of Standard or sample to appropriate wells. 3. Cover plate with Plate Sealer and incubate at room temperature (20-25°C) for 1 hour. 4. Wash plate four times with 1X Wash Buffer. 5. Add 100 µL of Biotinylated Antibody Working Solution to each well. 6. Cover plate with Plate Sealer and incubate at room temperature for 1 hour. 7. Wash plate four times with 1X Wash Buffer. 8. Add 100 µL of Streptavidin-HRP Working Solution to each well. 9. Cover plate with Plate Sealer and incubate at room temperature for 30 minutes. 10. Wash plate four times with 1X Wash Buffer. 11. Add 100 µL of TMB Substrate to each well. 12. Develop the plate in the dark at room temperature for 30 minutes. 13. Stop reaction by adding 100 µL of Stop Solution to each well. 14. Measure absorbance on a plate reader at 450 nm.

Kit Overview

Component No.

Item

Quantity / Size

SKC-123A

Anti-Alpha B Crystallin Immunoassay Plate

1 Plate

SKC-123B

5X Alpha B Crystallin Extraction Reagent

1 bottle/10 ml

SKC-123C

Recombinant Alpha B Crystallin Standard

2 vials

SKC-123D

Standard and Sample Diluent

1 bottle/ 50 ml

SKC-123E

10X Wash Buffer Concentrate

1 bottle/100 ml

SKC-123F

Anti-Alpha B Crystallin Biotinylated Antibody Concentrate

1 vial/150 μ l

SKC-123G

Anti-Alpha B Crystallin Biotinylated Antibody Diluent

1 bottle/ 13 ml

SKC-123H

Streptavidin: HRP Concentrate

1 vial/150 μ l

SKC-123I

Streptavidin: HRP Diluent

1 bottle/ 13 ml

SKC-123J

TMB Substrate

1 bottle/ 13 ml

SKC-123K

Stop Solution

1 bottle/ 13 ml

Cite This Product

Alpha B Crystallin ELISA Kit (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SKT-123)

Biological Description

Alternative Names

AACRYA, CRYA2, CRYAB, CTPP2, HSPB5, NY Ren 27 antigen, alpha crystallin B

Scientific Background

Alpha B-crystallin (CRYAB) is a small heat shock protein originally identified as a structural component of the vertebrate eye lens. Beyond its role in maintaining lens transparency, CRYAB functions as a molecular chaperone, preventing protein aggregation under stress conditions. It shares structural and functional similarities with other small heat shock proteins such as HSP25 and HSP27.

Importantly, alpha B-crystallin is expressed in a wide range of tissues, including the central nervous system, where it plays a critical role in cellular protection and protein homeostasis. In the brain, CRYAB is upregulated in response to oxidative stress, inflammation, and protein misfolding—hallmarks of neurodegenerative diseases.

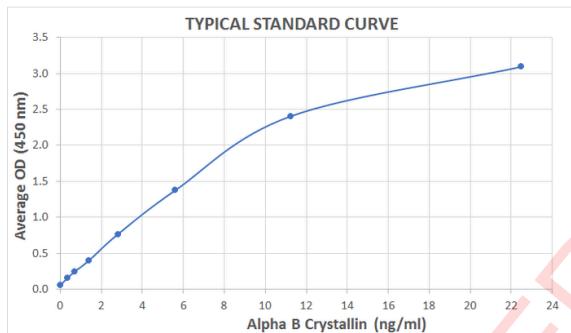
Emerging research highlights CRYAB's involvement in neurological disorders such as Alzheimer's disease, Parkinson's disease, multiple sclerosis, and Alexander disease. Its neuroprotective functions include inhibition of apoptosis via caspase suppression, stabilization of cytoskeletal elements, and interaction with key cellular components such as membrane proteins, nuclear proteins, and DNA.

Due to its stress-inducible nature and anti-aggregation properties, alpha B-crystallin is increasingly recognized as a potential biomarker and therapeutic target in neurodegeneration. Its ability to modulate protein folding and prevent toxic aggregate formation positions it at the forefront of neuroscience research focused on proteinopathies.

References

1. Merck K.B., et al. (1993) J Biol Chem. 268: 1046-1052.
2. Horwitz J. (1992) Proc Natl Acad Sci USA. 89(21):10449-10453.
3. Cobb B.A. and Petrash J.M. (2002) Biochemistry. 41:483-490
4. Horwitz J. (2003) Exp Eye Res. 76: 145-153.
5. Bullard B., et al. (2004) J Biol Chem. 279: 7917-7924.
6. Gangalum R.K., Schibler M.J. and Bhat S.P. (2004) J Biol Chem. 279: 43374-43377.
7. Maddala R. and Rao V.P. (2005) Exp Cell Res. 306: 203-215.
8. Yaung J., et al. (2007) Molecular Vision 13: 566-577.
9. Wilhelmus M.M.M., et al. (2006) Neuropathology and Applied Neurobiology. 32, 119-130.
10. Stege G.J.J., et al (1999) Biochemical and Biophysical Research Communications. 262, 152-156.
11. Outeiro T.F., et al (2006) Biochem Biophys Res Commun. December 22; 351(3): 631-638.
12. Rekas A., et al (2004) J. Mol. Biol. 340, 1167-118.
13. Yerbury J.J., et al (2013) Cell Stress and Chaperone. Mar;18(2):251-7.
14. Marino M., et al (2015) Neurobiology of Aging 36, 492-504.

Product Images



Typical Standard Curve for the Alpha B Crystallin ELISA Kit (Enzyme-Linked Immunosorbent Assay) StressXpress® – SKT-123. Assay Type: Sandwich ELISA. Detection Method: Colorimetric Assay. Assay Range: 0.352 – 22.5 ng/mL.

Reviews

Based on validation through cited publications.



StressMarq Biosciences
January 17, 2017:

Product Citations

FOR REFERENCE USE ONLY

x

91/100 Bioz Rating

6 Citations 1 Image



- Expd
- Expd
- Expd

Bioz AI Summary: The Alpha B Crystallin ELISA Kit from StressMarq has demonstrated significant utility

Search term

Techniques ▾

- Search for Techniques
- Enzyme-linked Immunosorbent Assay (ELISA)
- Concentration Assay (CO-A)
- Reverse Transcription (RT)
- Competitive ELISA (ELISA-CO)
- Control (CON)

Prospective determination of heat shock protein serum levels in Saskatchewan women during pregnancy
Lindsey B. Bond, T. Miskiewicz, ..., Daniel J. MacPhee

AJOG Global Reports | 2025 Aug 01 | 40809297 | [Read Article](#) | [Bioz AI Brief](#)

"ISA kits from Enzo Life Sciences Inc (catalog number: ADI-EKS-500; Plymouth Meeting, Montgomery County, available ^{Expressing} ^(EXP) from StressMarq Biosciences (catalog numbers: SKT-108 and **SKT-123**, respectively; Victoria, British concentrations according to t" [More...](#)

• Microplate Reader Absorbance Measurement
PROX-LA **ELISA** (MR-AM)

- Polymerase Chain Reaction (PCR)

Cited 4 times

• **Protein Ligation Assay**
PROX-LA

Protein phosphorylation of α B-Crystallin Involves Interleukin-1 β -Mediated Intracellular Retention in Retinal Müller Cells

Taku Yamamoto, Satoru Kase, ..., Susumu Ishida

Investigative Ophthalmology & Visual Sciences | 2023 Jul 17 | 37459063 | [Read Article](#) | [Bioz AI Brief](#)**Article Snippet**

"The protein levels of α B-crystallin in cell lysate and culture medium were determined with the **StressXpress Alpha B Crystallin ELISA kit** (StressMarq Biosciences, Victoria, Canada) per the manufacturer's instructions.. The optical density was measured using a microplate reader (Tecan, Männedorf, Switzerland).The optical density .." [More...](#)

- Recombinant

Figure Legend

"Intracellular α B-crystallin protein level was maintained regardless of IL-1 β -induced synthesis ..." [More...](#)

Sandwich ELISA

(ELISA-S)

[qRT-PCR](#)  [ELISA](#)  [RT](#)  [EXP](#) 

- Western Blot

(WB)



Cited 3 times

DPP-4 Inhibitors Attenuate Fibrosis After Glaucoma Filtering Surgery by Suppressing the TGF- β /Smad Signaling Pathway

Masaaki Yoshida, Taiki Kokubun, ..., Toru Nakazawa

Investigative ophthalmology & visual sciences | 2023 Jul 07 | 37405760 | [Read Article](#) | [Bioz AI Brief](#)

".. the normalizing control, and gene expression levels were calculated using the 2 $^{-}$ Ct method.. Enzyme-Linked Immunosorbent Assay (ELISA) protein levels in the culture medium were determined with the **StressXpress Alpha B Crystallin ELISA kit** (StressMarq Biosciences, Victoria, Canada) per the manufacturer's instructions.. The optical density was measured using a microplate reader (Tecan, Männedorf, Switzerland).The optical density .." [More...](#)

[qPCR](#)  [PCR](#)  [ELISA](#)  [RT](#) 

Cited 2 times

Serum advanced glycation end-products and α B-crystallin in diabetic retinopathy patients

Taku Yamamoto, Satoru Kase, ..., Susumu Ishida

Biomedical Reports | 2022 Apr 01 | 35251615 | [Read Article](#) | [Bioz AI Brief](#)

"Clinicopathological characteristics of participating patients.Clinicopathological characteristics of participating patients were determined with the **StressXpress Alpha B Crystallin ELISA kit** (cat. no. SKT-123, StressMarq Biosciences Inc.) and an AGE assay kit (cat. no. 100-00000-00000). The optical density was measured using a microplate reader (Tecan, Männedorf, Switzerland).The optical density .." [More...](#)

[ELISA-S](#)  [CO-A](#)  [ELISA-CO](#)  [ELISA](#) 

Cited 19 times

Increased levels of alphaB-crystallin in vitreous fluid of patients with proliferative diabetic retinopathy and maculopathy

Wei Chen, Qianyi Lu, ..., Huaijin Guan

Clinical & experimental ophthalmology | 2017 Oct 04 | 27928876 | [Read Article](#) | [Bioz AI Brief](#)

"**Bioz AI Summary** In the study examining proliferative diabetic retinopathy (PDR), the **Alpha B Crystallin ELISA kit** (cat. no. SKT-123, StressMarq Biosciences Inc.) was used to measure the concentrations in vitreous s..." [More...](#)

ELISA RECOMB Results per page:  / 6

FOR REFERENCE USE ONLY