Product Datasheet

AlphaB Crystallin/CRYAB Antibody - BSA Free
NB100-2519SS

Unit Size: 0.025 ml

Store at 4C. Do not freeze.

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Publications: 4

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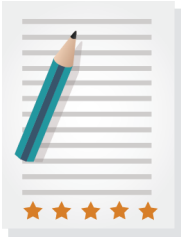
Updated 2/21/2025 v.20.1



NB100-2519SS

AlphaB Crystallin/CRYAB Antibody - BSA Free

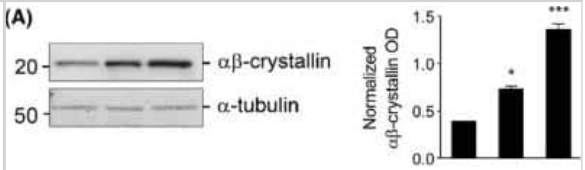
Product Information	
Unit Size	0.025 ml
Concentration	1.08 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-Citrate/Phosphate (pH 7.0 - 8.0)

Product Description	
Host	Rabbit
Gene ID	1410
Gene Symbol	CRYAB
Species	Human, Mouse
Reactivity Notes	Predicted to react with rat, sheep, rabbit, monkey, guinea pig, chicken, and pig based on 100% sequence homology. Immunogen sequence has 81% homology with Zebrafish.
Immunogen	A synthetic peptide made to an internal region of the human Crystallin AB protein (within residues 70-140). [Swiss-Prot P02511]

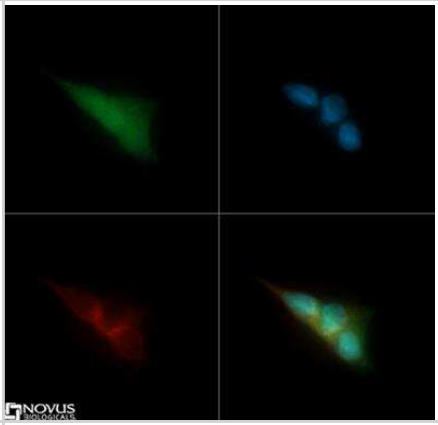
Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence
Recommended Dilutions	Western Blot 0.5-1.0 ug/ml, Immunocytochemistry/ Immunofluorescence 1:50 - 1:150. Use reported in scientific literature
Application Notes	In Western blot analysis, a band is seen at ~20 kDa. There is also a band of greater intensity at ~40 kDa that may be an aggregated heteromeric complex. **CryAB aggregates with homologous proteins, including CryAA and the small heat shock protein HSP28, to form large heteromeric complexes.

Images

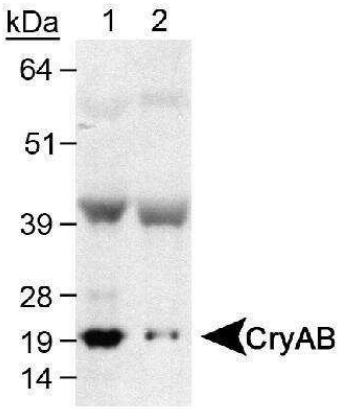
Western Blot: AlphaB Crystallin/CRYAB Antibody [NB100-2519] - Ethanol induces the expression of heat shock proteins (HSPs) in primary astrocyte culture. Increase in alphabeta-crystallin protein levels after treatment for 2 h with 60 mmol/L ethanol (EtOH) or 42C heat shock (HS) in primary astrocyte culture. alpha-tubulin used as an internal standard. The bar graph to the right of the immunoblots represents the quantification of immunoreactive bands intensities normalized to the internal standard, expressed in arbitrary optical density (OD) units. The data are the mean +/- SEM of normalized relative OD values analyzed by one-way ANOVA with Dunnett's multiple comparison post hoc test, n = 3 (significantly differently at the level of *P < 0.05, **P < 0.01, ***P < 0.001). Image collected and cropped by CiteAb from the following publication (https://doi.wiley.com/10.1002/brb3.125) licensed under a CC-BY license.



Immunocytochemistry/Immunofluorescence: AlphaB Crystallin/CRYAB Antibody [NB100-2519] - CRYAB antibody was tested in SHSH5Y cells with DyLight488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



Western Blot: AlphaB Crystallin/CRYAB Antibody [NB100-2519] - Detection of CryAB using NB 100-2519 (0.5ug/ml). Lane 1: Human skeletal muscle Lane 2: Mouse skeletal muscle.



Publications

Shaw A, TOth B, Arianti R Et al. BMP7 increases UCP1-dependent and independent thermogenesis with a unique gene expression program in human neck area derived adipocytes Pharmaceuticals 2021-09-28 [PMID: 34832860]

Chen AT, Xiao Y, Tang X et al. Cross-platform analysis reveals cellular and molecular landscape of glioblastoma invasion Neuro-oncology 2022-07-28 [PMID: 35901838]

Pignataro L, Varodayan FP, Tannenholz LE et al. Brief alcohol exposure alters transcription in astrocytes via the heat shock pathway. Brain Behav. 2013-03-01 [PMID: 23533150] (ICC/IF, Mouse)

Liu L, Qi X, Chen Z et al. Targeting the IRE1alpha/XBP1 and ATF6 Arms of the Unfolded Protein Response Enhances VEGF Blockade to Prevent Retinal and Choroidal Neovascularization. Am J Pathol 2013-02-07 [PMID: 23395094]

Procedures

Protocol specific for Crystallin AB Antibody (NB100-2519)
AlphaB Crystallin/CRYAB Antibody:
Western Blot Protocol

1. Perform SDS-PAGE (4-12%, Bis-Tris) on samples to be analyzed, loading 40 ug of total protein per lane.

2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.

3. Rinse membrane with dH2O and then stain the blot using ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.

4. Rinse the blot in TBS for approximately 5 minutes.

5. Block the membrane using 5% non-fat dry milk + 1% BSA in TBS, overnight at 4 degrees Celsius.

6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.

7. Dilute the rabbit anti-crystallin AB primary antibody (NB 100-2519) in blocking buffer and incubate 1 hour at room temperature.

8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.

9. Apply the diluted rabbit-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) and incubate 1 hour at room temperature.

10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).

11. Apply the detection reagent of choice in accordance with the manufacturer's instructions (Pierce's ECL).

Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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