

# Crystallin- $\alpha$ B (Phospho Ser45) Rabbit pAb

CatalogNo: YP0736 **Orthogonal Validated** 

## Key Features

### Host Species

- Rabbit

### Reactivity

- Human, Mouse, Rat, Monkey

### Applications

- WB, IHC, IF, ELISA

### MW

- 24kD (Observed)

### Isotype

- IgG

## Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

## Recommended Dilution Ratios

**WB 1:500-1:2000****IHC 1:100-1:300****ELISA 1:10000****IF 1:50-200**

## Basic Information

**Clonality** Polyclonal

## Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human CRYAB around the phosphorylation site of Ser45. AA range:21-70

## Specificity

Phospho-Crystallin- $\alpha$ B (S45) Polyclonal Antibody detects endogenous levels of Crystallin- $\alpha$ B protein only when phosphorylated at S45. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):SLSPF

## Target Information

**Gene name** CRYAB

**Protein Name** Alpha-crystallin B chain

Organism	Gene ID	UniProt ID
Human	<a href="#">1410</a> ;	<a href="#">P02511</a> ;
Mouse	<a href="#">12955</a> ;	<a href="#">P23927</a> ;
Rat	<a href="#">25420</a> ;	<a href="#">P23928</a> ;

## Cellular Localization

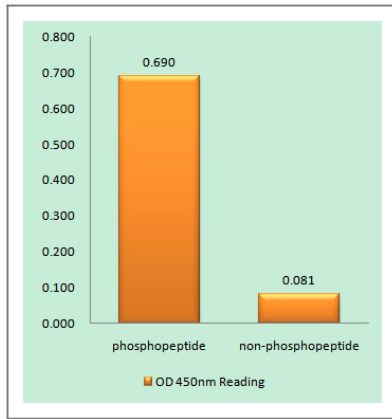
Cytoplasm . Nucleus . Secreted . Lysosome . Translocates to the nucleus during heat shock and resides in sub-nuclear structures known as SC35 speckles or nuclear splicing speckles (PubMed:19464326). Localizes at the Z-bands and the intercalated disk in cardiomyocytes (PubMed:28493373). Can be secreted; the secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10; it results in protein translocation from the cytoplasm into the ERGIC (endoplasmic reticulum-Golgi intermediate compartment) followed by vesicle entry and secretion (PubMed:32272059). .

**Tissue specificity** Lens as well as other tissues (PubMed:838078, PubMed:2387586). Expressed in myocardial tissue (PubMed:28493373).

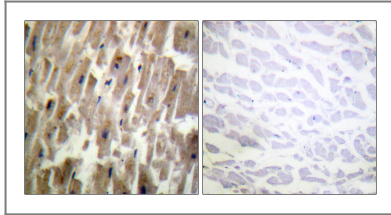
## Function

Disease:Crystallins do not turn over as the lens ages, providing ample opportunity for post-translational modifications or oxidations. These modifications may change crystallin solubility properties and favor senile cataract.,Disease:Defects in CRYAB are the cause of alpha-B crystallinopathy [MIM:608810]. Alpha-B crystallinopathy is a an autosomal dominant form of desmin-related myopathy (DRM) that results in weakness of the proximal and distal limb muscle (including neck, velopharynx, and trunk muscles), signs of cardiomyopathy and cataract. Patients with progressive myopathy characterized by myofibrillar degeneration that commences at the Z-disk, have been described. Mutations truncate the essential C-terminal domain of the protein required for the chaperone function.,Disease:Seen as Rosenthal fiber protein in the brain tissue of patients with Alexander disease.,Function:May contribute to the transparency and refractive index of the lens.,mass spectrometry: PubMed:10930324,mass spectrometry: PubMed:8175657,mass spectrometry:With 1 phosphate group PubMed:10930324,mass spectrometry:With 1 phosphate group PubMed:8175657,mass spectrometry:With 2 phosphate groups PubMed:8175657,similarity:Belongs to the small heat shock protein (HSP20) family.,subunit:Aggregates with homologous proteins, including CRYAA and the small heat shock protein HSPB1, to form large heteromeric complexes. Interacts with HSPBAP1 and TTN/titin.,tissue specificity:Lens as well as other tissues.,

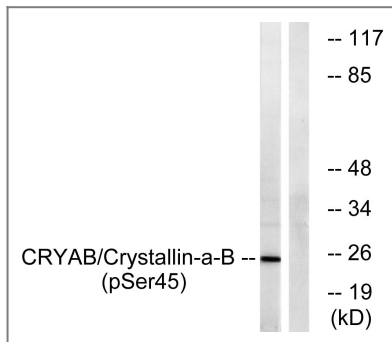
## Validation Data



Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using CRYAB (Phospho-Ser45) Antibody



Immunohistochemistry analysis of paraffin-embedded human heart, using CRYAB (Phospho-Ser45) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COS7 cells treated with anisomycin 25ug/ml 30', using CRYAB (Phospho-Ser45) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

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Please scan the QR code to access additional product information:  
**Crystallin- $\alpha$ B (Phospho Ser45) Rabbit pAb**

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