

# βB2-crystallin (N-20): sc-22408

## BACKGROUND

Crystallins are the major proteins of the vertebrate eye lens, where they maintain the transparency and refractive index of the lens. Crystallins are divided into  $\alpha$ ,  $\beta$ , and  $\gamma$  families, and the  $\beta$ - and  $\gamma$ -crystallins also comprise a superfamily. Crystallins usually contain seven distinctive protein regions, including four homologous motifs, a connecting peptide, and N- and C-terminal extensions.  $\beta$ -crystallins constitute the major lens structural proteins, and they associate into dimers, tetramers, and higher order aggregates. The  $\beta$ -crystallin subfamily is composed of several gene products, including  $\beta$ A1-,  $\beta$ A2-,  $\beta$ A3-,  $\beta$ A4-,  $\beta$ B1-,  $\beta$ B2- and  $\beta$ B3-crystallin. The  $\beta$ A1- and  $\beta$ A3-crystallin proteins are encoded by a single mRNA. They differ by only 17 amino acids, and  $\beta$ A1-crystallin is generated by use of an alternate translation initiation site.

## CHROMOSOMAL LOCATION

Genetic locus: CRYBB2 (human) mapping to 22q11.23; Crybb2 (mouse) mapping to 5 F.

## SOURCE

βB2-crystallin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of βB2-crystallin of human origin.

## PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-22408 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

βB2-crystallin (N-20) is recommended for detection of βB2-crystallin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

βB2-crystallin (N-20) is also recommended for detection of βB2-crystallin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for βB2-crystallin siRNA (h): sc-40444, βB2-crystallin siRNA (m): sc-40445, βB2-crystallin shRNA Plasmid (h): sc-40444-SH, βB2-crystallin shRNA Plasmid (m): sc-40445-SH, βB2-crystallin shRNA (h) Lentiviral Particles: sc-40444-V and βB2-crystallin shRNA (m) Lentiviral Particles: sc-40445-V.

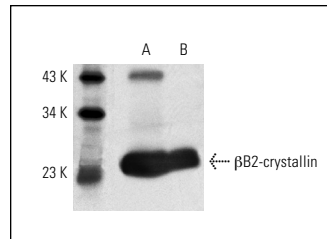
Molecular Weight of βB2-crystallin: 24 kDa.

Positive Controls: β2-crystallin (h): 293T Lysate: sc-127861, rat eye extract: sc-364805 or mouse eye extract: sc-364241.

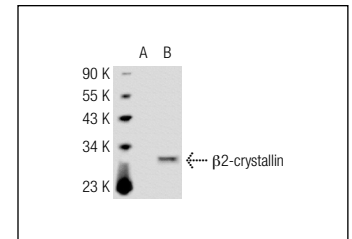
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



βB2-crystallin (N-20): sc-22408. Western blot analysis of βB2-crystallin expression in rat eye (A) and mouse eye (B) tissue extracts.



βB2-crystallin (N-20): sc-22408. Western blot analysis of β2-crystallin expression in non-transfected: sc-117752 (A) and human β2-crystallin transfected: sc-127861 (B) 293T whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **βB2-crystallin (B-12): sc-376006** or **βB2-crystallin (D-1): sc-376856**, our highly recommended monoclonal alternatives to βB2-crystallin (N-20).