βB1-crystallin (A-8): sc-374496

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 α-, β-, and γ-families, and the β- and γ-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. β-crystallins constitute the major lens structural proteins, and they associate into dimers, tetramers, and higher-order aggregates. The β-crystallin subfamily is composed of several gene products, including βA1-, βA2-, βA3-, βA4-, βB1-, βB2- and βB3-crystallin. The βA1- and βA3-crystallin proteins are encoded by a single mRNA. They differ by only 17 amino acids, and βA1-crystallin is generated by use of an alternate translation initiation site.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: CRYBB1 (human) mapping to 22q12.1; Crybb1 (mouse) mapping to 5 F.

SOURCE

βB1-crystallin (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 85-103 within an internal region of βB1-crystallin of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

βB1-crystallin (A-8) is recommended for detection of βB1-crystallin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).


Molecular Weight of βB1-crystallin: 28 kDa.


RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG HRP: sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG HRP (Cruz Marker™): sc-516102 or rat eye extract: sc-364805.

DATA

βB1-crystallin (A-8): sc-374496. Western blot analysis of βB1-crystallin expression in mouse eye (A) and rat eye (B) tissue extracts.

βB1-crystallin (A-8): sc-374496. Western blot analysis of βB1-crystallin expression in non-transfected (A) and human βB1-crystallin transfected: sc-117752 (A) and human βB1-crystallin transfected: sc-128077 (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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.