SANTA CRUZ BIOTECHNOLOGY, INC.

# γD-crystallin (SB-18): sc-100697

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## 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. γ-crystallins are structural proteins in the lens, and they exists as monomers which typically lack connecting peptides and terminal extensions. The γ-crystallins include seven closely related proteins, namely γA-, γB-, γC-, γD-, γE-, γF- and γG-crystallin, as well as the γN and γS-crystallin proteins. The γ-crystallins are differentially regulated after early development, and are involved in cataract formation as a result of either age-related protein degradation or genetic mutation.

## REFERENCES


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## CHROMOSOMAL LOCATION

Genetic locus: CRYGD (human) mapping to 2q33.3; Crygd (mouse) mapping to 1 C2.

## SOURCE

γD-crystallin (SB-18) is a mouse monoclonal antibody raised against recombinant γD-crystallin of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 100 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

γD-crystallin (SB-18) is recommended for detection of γD-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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for γD-crystallin siRNA (h): sc-40456, γD-crystallin siRNA (m): sc-40457, γD-crystallin shRNA Plasmid (h): sc-40456-SH, γD-crystallin shRNA Plasmid (m): sc-40457-SH, γD-crystallin shRNA (h) Lentiviral Particles: sc-40456-V and γD-crystallin shRNA (m) Lentiviral Particles: sc-40457-V.

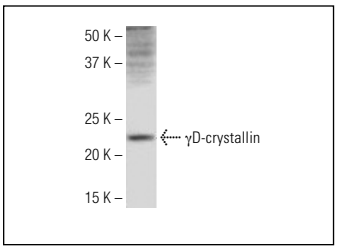
Molecular Weight of γD-crystallin: 20 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).

## DATA




γD-crystallin (SB-18): sc-100697. Western blot analysis of γD-crystallin expression in Hep G2 whole cell lysate.

## 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 for detailed protocols and support products.