

γ A-crystallin (D-16): sc-82604

BACKGROUND

Crystallins, the major proteins of the vertebrate eye lens, are responsible for maintaining the transparency and the refractive index of the lens. Crystallins are divided into α , β and γ families, all of which usually contain seven distinctive protein regions, including four homologous motifs, one connecting peptide, and N- and C-terminal extensions. The γ -crystallin family is comprised of seven closely related proteins designated γ A-, γ B-, γ C-, γ D-, γ E-, γ F- and γ G-crystallin. γ A-crystallin, also known as CRYGA, CRYG5 or CRYG1, is a 174 amino acid member of the γ -crystallin family. Functioning as a monomer that has a two-domain β fold, γ A-crystallin, like other members of its family, plays a key role in ensuring the proper structure of the vertebrate eye lens. Defects in the gene encoding γ A-crystallin are associated with the formation of cataracts which are characterized by a clouding of the crystalline lens of the eye.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CRYGA (human) mapping to 2q33.3.

SOURCE

γ A-crystallin (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of γ A-crystallin of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-82604 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

γ A-crystallin (D-16) is recommended for detection of γ A-crystallin of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

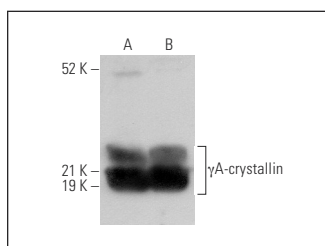
Suitable for use as control antibody for γ A-crystallin siRNA (h): sc-40450, γ A-crystallin shRNA Plasmid (h): sc-40450-SH and γ A-crystallin shRNA (h) Lentiviral Particles: sc-40450-V.

Molecular Weight of γ A-crystallin: 21 kDa.

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



γ A-crystallin (D-16): sc-82604. Western blot analysis of γ A-crystallin expression in mouse eye (A) and rat eye (B) tissue extracts.

RESEARCH USE

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

PROTOCOLS

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