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Product Information

Anti- α -A-Crystallin

Developed in Rabbit
Affinity Isolated Antibody

Product Number **C 5990**

Product Description

Anti- α -A-Crystallin is developed in rabbit using purified α -A-crystallin from bovine lens as the immunogen. Anti- α -A-Crystallin detects α -A-crystallin from bovine and rat samples. The antibody was affinity isolated on immobilized immunogen.

Anti- α -A-Crystallin specifically recognizes an ~20 kDa protein representing α -A-crystallin from bovine lens samples. Immunohistochemical staining of α -A-crystallin in rat thymus samples results in staining of epithelial reticular cells. This antibody does not detect the unphosphorylated form of the protein.

Lens proteins consist almost entirely of crystallins, with α -crystallin comprising 40% of total lens protein composition.^{1,2} In addition to maintaining the proper refractive index, it also functions in a chaperone-like manner by preventing the formation of aggregates possibly leading to cataract formation.^{3,4} It is believed that the phosphorylated states of the α -crystallin occur in response to cellular stress and may serve a structural control function and play a role in protein maintenance.⁴

Reagent

Anti- α -A-Crystallin is supplied lyophilized from phosphate buffered saline, pH 7.4, with 3% bovine serum albumin and 0.05 % sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling.

Storage/Stability

The lyophilized powder can be stored intact at room temperature for several weeks. For extended storage, it should be stored at -20 °C or below. The reconstituted solution can be stored at 2-8 °C for up to 2 weeks. For longer storage, freeze in working aliquots. Avoid repeated freezing and thawing. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use (10,000 x g for 5 minutes). Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilutions are 0.1 μ g/ml for Western blot and 10 μ g/ml for Immunohistochemistry (Paraffin).

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, determination of optimal working dilutions by titration test is recommended.

References

1. Piatigorsky, J., *J. Struct. Funct. Genomics*, **3**, 131-137 (2003).
2. Horwitz, J., *Exp. Eye Res.*, **76**, 145-153 (2003).
3. Bhat, S.P., *Prog. Drug Res.*, **60**, 205-262 (2003).
4. Narberhaus, F., *Microbiol. Mol. Biol. Rev.*, **66**, 64-93 (2002).

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