COSMO BIO CO., LTD.
Inspiration for Life Science

POLYCLONAL ANTIBODY

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Catalog No. ACC-PA005

Anti alpha-B crystallin p45S

Background：

Lens proteins consist almost entirely of crystallins (about 95%). Crystallins are also found in vertebrate skeletal muscle tissue. In the lens, their structural function is to assist in maintaining the proper refractive index of the lens. The mammalian lens contains 3 major classes of crystallins: alpha, beta, and gamma. Alpha-crystallin is the largest of the crystallins and is composed of 2 primary gene products, alpha-A and alpha-B. There are at least 5 different proteins comprising the beta-crystallins. The gamma-crystallins are monomeric, but there are at least 5 gamma crystallins identified in bovine and rat lens.

Alpha-Crystallin comprises 40% of total lens protein composition. In addition to maintaining proper refractive index, it also functions in a chaperone like manner by preventing the formation of aggregates possibly leading to cataract formation. It is believed that the phosphorylated states of the alpha-crystallin occur in response to cellular stress and may serve a structural control function and play a role in protein maintenance. Alpha-B crystallin has been linked to Alexander and quotes disease where it accumulates in brain cells of those afflicted.

Applications:	Western Blotting (WB)	: 0.5 ug/ml
	Immunofluorescence (IF)	: 5 ug/ml
	Immunohistochemistry (Paraffin) (IHC (P))	: 8 ug/ml
Specificity:	Alpha-B crystallin p45S	
Immunogen:	Synthetic phosphopeptide corresponding to residues L(44)S(p)PFYLRPPSF(54)C of human alpha-B Crystallin.	
Host:	Rabbit	
Reactivity:	Bovine, Human, Mouse, Rat	
Clonality:	Polyclonal	
Subclass:	IgG	
Purification method:	Affinity purified	
Form:	Liquid (0.1M NaPB, pH7.0, 20 mg/ml BSA, 0.1% Sodium Azide (NaN_3) added)	
Conjugation:	None	
Volume:	50 ug (1 mg/ml)	
Storage condition:	-20℃	

Example Assay Data:

1. Western Blotting

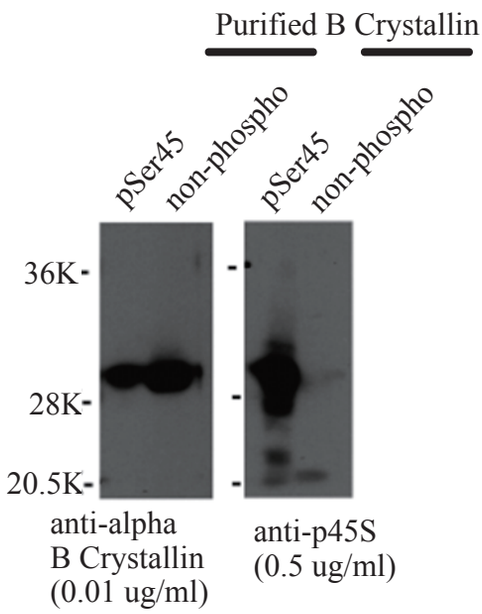

Figure 1. Western Blotting result of Anti alpha-B crystallin p45S antibody

References:

Ito H, Okamoto K, Nakayama H, Isobe T, Kato K. (1997) Phosphorylation of B-crystallin in response to various types of stress. J Biol Chem. 272, 29934-29941.

Kato K, Ito H, Kamei K, Inaguma Y, Iwamoto I, Saga S. (1998) Phosphorylation of B-crystallin in mitotic cells and identification of enzymatic activities responsible for phosphorylation. J Biol Chem. 273, 28346-28354.

Ito H, Iida K, Kamei K, Iwamoto I, Inaguma Y, Kato K. (1999) B-crystallin in rat lens is phosphorylated at an early postnatal age. FEBS Lett. 446, 269-272.

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