β-Crystallin (bovine), (native)

The β-crystallins comprise a complex group of heteropolymers which are assembled from 6 primary gene products, the acidic (βA1, βA2, βA3) and the basic (βB1, βB2, βB3) polypeptides. βA1 and βA3 are identical, except for their N-termini, and appear to be generated by alternative translation of the same gene. βB1 occurs in two forms, the primary gene product, βB1a, and βB1b which is generated through proteolysis. Further heterogeneity stems from post-translational modifications such as phosphorylation and/or other modifications that accumulate with aging. The subunits range in size from 23-25 kDa for the βA and 26- 32 kDa for the βB polypeptides. The β-crystallins can be isolated in several aggregation states, spanning a molecular weight range from about 46 kDa to > 200 kDa. These include the octameric βH, the tetrameric βL1, and the dimeric β forms. β-crystallins generally represent the second most abundant group of proteins in the lens but their proportions and properties vary with development. In the prenatal bovine lens, β-crystallins account for 30% of the total proteins and βH is predominant. In the adult, the total has increased to 40% due to an increased production of the βL species. With the exception of βB1a and βB1b which are found only in βH and appear to be responsible for its aggregation, all polypeptides are found in all forms of the protein. The βB2 polypeptide (previously called βBp) predominates, accounting for about 50% of the total. The lack of stoichiometry in the subunit contents suggests that each of the different molecular weight populations is a mixture of aggregates with most of the major polypeptides represented. These various species appear to be in equilibrium and their proportions vary with protein concentration. It is likely that even more highly aggregated forms, are the major species in the lens.

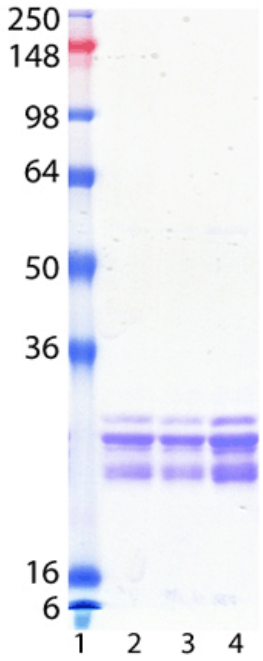
Ordering Information

Order Online »

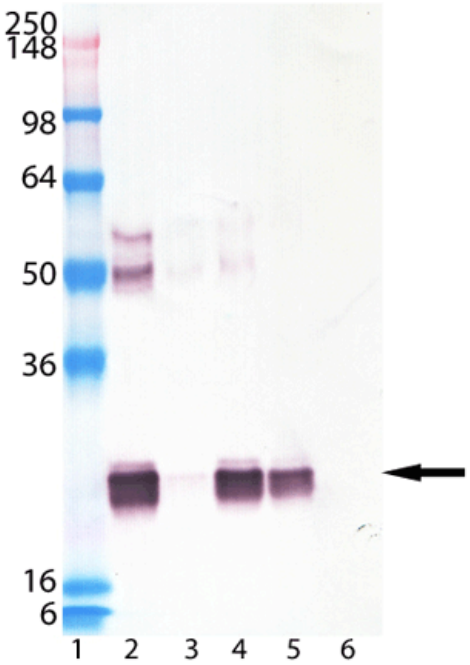
ENZ-PRT224-1000	1mg

Manuals, SDS & CofA

View Online »



Lane 1: MWM, Lane 2: 1µg, Lane 3: 2µg, Lane 4: 6µg β-Crystallin (bovine), (native), Prod. No. ENZ-PRT224.



Lane 1: MWM, Lane 2: Bovine eye lens extract, Lane 3: α-Crystallin (bovine), (native), Lane 4: α/β-Crystallin (bovine), (native), Lane 5: β-Crystallin (bovine), (native), Prod. No. ENZ-PRT224, Lane 6: γ-Crystallin (bovine), (native) probed with β-Crystallin monoclonal antibody (3.H9.2), Prod. No. ADI-SPA-230.

Handling & Storage

Long Term Storage	-80°C
Shipping	Dry Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name	CRYBB
Application Notes	Western blot control.
Formulation	Liquid. In PBS, pH 7.2, containing 0.15M sodium chloride, 0.05M phosphate buffer, and 0.09% sodium azide.
MW	~25kDa (observed)
Purity	≥80% (SDS-PAGE; Western blot)
Purity Detail	Purified by multi-step chromatography.
Source	Isolated from bovine eye lens.
UniProt ID	P26444 (βA2), P11843 (βA3), P07318 (βB1), P02522 (βB2), P19141 (βB3)

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