

DATASHEET

CapZ

Non-muscle, recombinant
(~90% purity)

For Research Use Only.
Not for Use in Diagnostic Processes.

Quantity: 1.0 mg
Cat. #: 8322-02

Product Description

The subunits of the heterodimeric capping protein CapZ possess a molecular mass of 36kDa (α -subunit) and 32kDa (β -subunit). CapZ binds with high affinity in a Ca^{++} -independent manner to the barbed end of actin filaments.

The protein concentration of CapZ was determined by BCA and the purity by scanning densitometry of Coomassie G-250 stained SDS-Gels. The lyophilized CapZ contains 150mM NaCl, 20mM Hepes pH 7.4, 1mM DTT and 1% disaccharides, when reconstituted with 1.0ml H_2O .

Determination of capping activity: F-actin (Cat.#:8101) containing 20% pyrene actin (Cat.#: 8112) was incubated with CapZ and diluted below the critical concentration. Depolymerisation was followed by fluorometry and compared to an actin reference without CapZ. Complete capping was obtained at a molar ratio of 1:100 (CapZ:Actin). All proteins were used as supplied, i.e. without dialysis. Actin stock solutions were pre-spun 15min, 15.000xg, 4°C.

Product Handling

Preparation of a working stock

Add 1.0ml H_2O to the tube with CapZ to obtain a 1mg/ml stock. Vortex mildly and allow the protein to rehydrate for 2min and vortex again. Quickly spin the tube up to $\sim 3.000\text{xg}$ for seconds to collect the solution at the bottom. Depending on the purpose this stock solution is ready-to-use. For critical assays we recommend buffer exchange against 150mM NaCl, 20mM Hepes pH 7.4, 1mM DTT.

Product Storage and Stability

Store the product at -70° upon arrival, where it will be stable for at least 6 months. Once dissolved, CapZ is kept on ice and should be used within 5 days. Avoid refreezing. If aliquots shall be prepared for storage, add glycerol to a final concentration of 50% and store at -20°C .

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