

## DATASHEET

### Thymosin $\beta$ 4

Human recombinant, untagged  
(~99% purity)

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

Quantity: 2x50 $\mu$ g  
Cat. #: 8422-01

#### Product Description

Thymosin is a hormone secreted from the thymus. The predominant form of thymosin, thymosin b4, is a member of a highly conserved family of actin monomer sequestering proteins. Beta-thymosins are the primary regulators of unpolymerized actin, and are essential for maintaining the small cytoplasmic pool of free G-actin monomers required for rapid filament elongation and allowing for the flux of monomers between the thymosin bound pool and F-actin. The predominant form of thymosin, thymosin  $\beta$ 4, is a member of a highly conserved family of actin monomer sequestering proteins.

The protein concentration of thymosin  $\beta$ 4 was measured at OD<sub>280</sub> (0.1%=1.226) and the purity by scanning densitometry of Coomassie G-250 stained SDS-Gels. Lyophilized thymosin  $\beta$ 4 contains 5mM Tris, pH 8.1, 0.1mM DTT and 2% sucrose, when reconstituted with ultrapure H<sub>2</sub>O to a 1.0 mg/ml solution.

#### Product Handling

Preparation of a working stock

Add 50 $\mu$ l H<sub>2</sub>O to the tube with thymosin  $\beta$ 4 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 ~3.000xg 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 for removal of sugars against 5mM Tris, pH 8.1, 0.1mM DTT.

#### Product Storage and Stability

Store the product at -70° upon arrival, where it will be stable for at least 6 months. Once dissolved, thymosin  $\beta$ 4 is kept on ice and should be used within 5 days. Avoid refreezing.

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