Active Native Rabbit Heavy Meromyosin Protein

Cat. No. MYS-01R **Lot. No.** (See product label)

SPECIFICATION

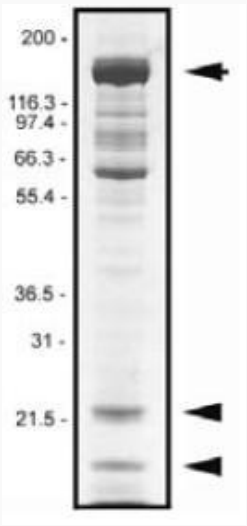
Product Overview	Heavy meromyosin has been produced by α-chymotrypsin proteolytic cleavage of full-length myosin II protein isolated from rabbit skeletal muscle. Heavy meromyosin has been determined to be biologically active in an F-actin activated ATPase assay.
Species	Rabbit
Source	Skeletal muscle
Description	Heavy meromyosin consists of an active motor fragment consisting of two head domains connected by their subfragment-2 (S2) regions and two pairs of light chains, essential light chain (ELC) and regulatory light chain (RLC).
Form	White lyophilized powder
Bio-activity	The biological activity of rabbit heavy meromyosin is determined from its rate of F-actin activated ATP hydrolysis. A standard biological assay for monitoring ATP hydrolysis by heavy meromyosin consists of an in vitro F-actin ATPase assay. Stringent quality control ensures that in the presence of F-actin, rabbit heavy meromyosin will have a minimum hydrolysis rate 500 fold greater than in the absence of F-actin.
Purity	Protein purity is determined by scanning densitometry of Coomassie Blue stained protein on a 4-20% gradient polyacrylamide gel. Heavy meromyosin protein was determined to be 70% pure

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Applications	Measurement of F-actin activated ATPase activity Identification/characterization of proteins or small molecules that affect heavy meromyosin ATPase activity Identification/characterization of proteins or small molecules that affect heavy meromyosin Factin interaction
Stability	The lyophilized protein is stable at 4 centigrade desiccated (<10% humidity) for 1 year.
Storage	Upon arrival store at 4 centigrade (desiccated)
Storage Buffer	When reconstituted in nanopure water, the protein will be in the following buffer: 10 mM Imidizole pH 7.0, 50 mM KCl, 3 mM MgCl2, 1 mM DTT, 5% sucrose and 1% dextran.
Reconstitution	Briefly centrifuge to collect the product at the bottom of the tube. The protein should be reconstituted to 5 mg/ml by the addition of 10 µof Milli-Q water. The protein will be in the following buffer: 10 mM imidizole pH 7.0, 50 mM KCl, 3 mM MgCl2, 1 mM DTT, 5% (w/ v) sucrose and 1% (w/v) dextran. In order to maintain high biological activity of the protein, it is recommended that the protein solution be aliquoted into "experiment sized" amounts, snap frozen in liquid nitrogen and stored at -70 centigrade. The protein is stable for 6 months if stored at -70 centigrade. The protein should not be ex- posed to repeated freeze-thaw cycles. The lyophilized protein is stable at 4 centigrade desiccated (<10% humidity) for 1 year.

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Heavy meromyosin purity determination.



A 10 µg sample was separated by electrophoresis in a 4-20% SDS-PAGE system, and stained with Coomassie Blue. Arrow indicates the truncated myosin head domain (approx. 150 kDa), arrowheads indicate the RLC (approx. 20 kDa) and ELC (approx. 17 kDa).

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