

## DATASHEET

### NEM-Myosin II

From rabbit skeletal muscle (*m. psoas*)  
(fast muscle myosin II, ~95% purity)

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

Quantity: 2×100µg  
Cat. #: 8316-01

#### Product Description

NEM-Myosin II is chemically inactivated myosin II from rabbit skeletal muscle. Myosin II is a hexameric, actin-binding ATPase with a total molecular weight of 480kD arranged in a head- and-tail conformation. Chemical modification of myosin II with N-ethylmaleimide inactivates the ATP motor domains, while actin binding is preserved. The protein concentration of myosin II was determined by measuring the absorbance at 280nm (0.1% = 0.53) and the purity by scanning densitometry from Coomassie G-250 stained SDS-Gels.

NEM-Myosin II (100µg) is supplied as lyophilized powder containing 500mM KCl, 20mM Imidazole pH 7.0, 2mM DTT and 10% disaccharides, when reconstituted with 100µl H<sub>2</sub>O. For coated or filamentous NEM-Myosin II MotorMix I (Cat. #: 5502-01) is used. Soluble NEM-Myosin II is diluted either with MotorMix II (Cat. #: 5503-01) or 500mM KCl, 20mM Imidazole pH 7.0, 2mM DTT.

Due to our special cryoconservation technique NEM-myosin II is highly preserved. The biological activity of NEM-myosin II was determined in actin polymerization assays by TIRF microscopy.

#### Preparation of a working stock

Example: Add 100µl ml of H<sub>2</sub>O to the tube with NEM-Myosin II to obtain a 1mg/ml working stock. Stocks may have a concentration of e.g. 10mg/ml, but not below 1mg/ml without addition of NEM-myosin buffer. Leave the protein solution to rehydrate for 2min at room temperature and vortex mildly until dissolved. NEM-Myosin II is ready-to-use. Remove aggregates by pre-spinning for 5min, 15.000xg, +4°C.

#### Product Storage and Stability

Store the freeze-dried product at -70° upon arrival, where it will be stable for at least 6 months. Once dissolved, NEM-Myosin II is kept on ice and will be stable for 5 days. We recommend prolongation of shelf life by mixing glycerol to the protein stock (50% final conc.). This permits product storage of at -20°C for at least three months.

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