



## DATASHEET

## G-ACTIN

G-actin

From rabbit skeletal muscle  
(a-skeletal muscle actin, 99% purity)

Quantity: 1mg

Cat. no.: 8101-03

Quantity: 10x1mg

Cat. no.: 8101-04

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

## Product Description

G-actin from rabbit skeletal muscle is a single chain polypeptide with a molecular weight of 42kD consisting of 375 amino acids. G-actin (1mg) is supplied as lyophilized powder containing 2mM Tris-Cl pH 8.2, 0.4mM ATP, 0.5mM DTT, 0.1mM CaCl<sub>2</sub> and 0.2% disaccharides, when reconstituted with 1ml H<sub>2</sub>O. For dilution of G-actin or exchange of ligand buffer into actin compatible buffer, MonoMix (Cat no.: 5100-0\*) may be used. In the absence of nucleators, the polymerization of G-actin is initiated by PolyMix (Cat no.: 5000-0\*).

Due to our special cryoconservation technique this highly soluble G-actin is of excellent biological activity and quality.

## Product Handling

## Preparation of a stock solution

Add e.g. 1ml of H<sub>2</sub>O to the tube with G-actin to obtain a stock solution of 1mg/ml (23.8µM). A stock concentration of 4mg/ml (95.2µM) should not be exceeded to avoid spontaneous polymerization. Allow the G-actin solution to rehydrate for 2min at room temperature and dissolve using a pipette. If G-actin is used for polymerization with PolyMix (Cat no.: 5000-0\*), we recommend to prepare a G-actin stock of 1.1mg/ml (26.2µM), as addition of PolyMix will dilute the G-actin/F-actin stock to a final concentration of 1mg/ml (23.8µM).

The actin stock is ready for use. For critical assays we recommend dialysis of actin against 50-100vol. of MonoMix O/N and subsequent centrifugation at 100.000xg for 60min to remove any aggregates from lyophilization. For less critical assays the actin working stock may be filtered (0.2-0.45µm) or pre-spun (15.000xg, 10min).

## Product Storage and Stability

G-actin stored at -70°C upon arrival will be stable in performance for at least 6 months from the date of purchase. Solubilized G-actin is kept on ice and should be used within 1 week. Avoid refreezing.

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