Actin Polymerization Kit: rabbit skeletal muscle actin

Cat. No. Kit-0047 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The Actin Polymerization Biochem Kit is based on the enhanced fluorescence of pyrene conjugated actin that occurs during polymerization. The enhanced fluorescence that occurs when pyrene G-actin (monomer) forms pyrene F-actin can be used to follow polymerization over time. Also, by using preformed pyrene F-actin, it is possible to follow depolymerization. Both cell/tissue extracts and purified proteins can be added to the reaction mixture to identify their effect on actin polymerization. The components of the kit can also be used separately for other actin based assays such as a spin-down assays to detect F-actin binding proteins or size exclusion chromatography to identify G-actin binding proteins.
Size	30-100 assays
Applications	1. To show quantitative/qualitative effects on actin polymerization by the addition of a tissue extract, an actin binding protein or compound.2. To show quantitative/qualitative effects on actin polymerization by addition of an F-actin nucleating protein, compound or extract.3. To show quantitative/qualitative effects on steady-state F-actin levels by addition of an F-actin severing protein, compound or tissue extract.4. To show quantitative/qualitative effects on actin depolymerization by addition of an actin binding protein, compound or tissue extract.
Kit Components	Reagent-Quantity -Description Pyrene Labeled Muscle Actin: 5 x 1 mg, Lyophilized. >99% pure labeled actin, 1 mg per tube. General Actin Buffer: 1 x 100 ml, Lyophilized. 5 mM Tris-HCl pH 8.0 and 0.2 mM CaCl2 when resuspended. Actin Polymerization Buffer: 2 x 2 ml, Lyophilized. 500 mM KCl, 20 mM MgCl2, 0.05M

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	guanidine carbonate and 10 mM ATP when resuspended. 10X strength. ATP stock: 1x 1 ml, Lyophilized. 100 mM ATP when resuspended. Tris-HCl pH 7.5: 1 x 5 ml, Lyophilized. 100 mM when reconstituted. 96 well plate: 1 plate, Black polystyrene assay plate.

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