Active Native Porcine Tubulin Protein, Taxol Stabilized and Lyophilized

Cat. No. Tubulin-01P **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Native Porcine Tubulin Protein purified from Porcine Brain.
Species	Porcine
Source	Brain
Description	Tubulin is a protein that forms microtubules, essential for cell structure, movement and division.
Form	Lyophilized powder
Purity	> 99%
Applications	Substrate for activation of kinesin ATPases; Determination of IC50s for kinesin inhibitors; Used in kinesin ELIPA and End point ATPase assays; Substrate for discovery and characterization of microtubule binding proteins (MAPs); Ideal for HTS applications (inquire for bulk rates)
Storage	The lyophilized protein can be stored desiccated to <10% humidity at 4 centigrade for 1 year. Lyophilized protein can also be stored dessicated at –70 centigrade.
Shipping	Shipped at ambient temperature.
Reconstitution	The reconstitution instructions outlined below have been optimized for a MT activated

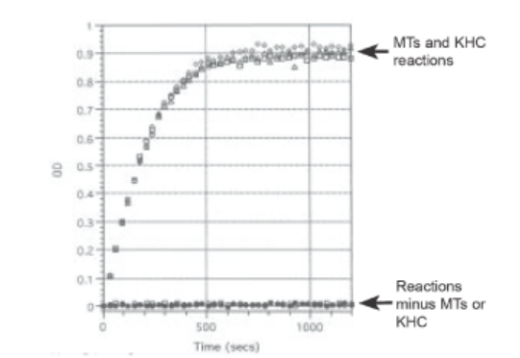
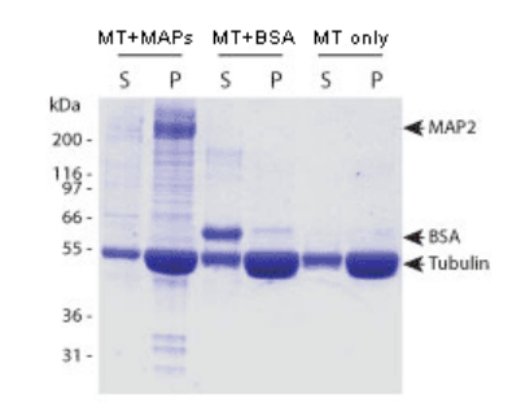
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kinesin ATPase assay. The MTs can be resus pended to any desired concentration and in other buffer as long as taxol is included. If the MTs are to be frozen into aliquots for long term storage after reconstitution then a 5 mg/mL MT concentration is recommended (1 mg/mL can be frozen but will have a shorter shelf life). If you plan to use a different buffer from the one shown we recommend calling technical service to check on compatibility. Reconstitute as follows: 1. Warm appropriate amount of PM buffer to room temperature to resuspend MTs to 1 mg/mL. (PM buffer = 15 mM PIPES pH 7.0, 1 mM MgCl2). 2. Prepare a 2 mM taxol stockbin anhydrous DMSO and add 100 µL per 10 ml room temperature PM buffer. This is now MT resuspension buffer. NOTE: If is important to make sure that the PM buffer is at room temperature as taxol will precipitate out of solution if added to cold buffer. 3. Add MT resuspension buffer to the lyophilized MTs to a concentration of 1 mg/mL. Mix gently. 4. Leave the MTs at room temperature for 10-15 minutes with centigradecasional gentle mixing. 5. The MTs are now ready to use. They are at a mean length of 2 µm. 6. The microtubules will be stable for 2-3 days at room temperature, although it should be noted that the mean length distribution will increase over time. 7. Any microtubules that are not used can be snap frozen in convenient aliquots. NOTE: Liquid nitrogen must be used to snap freeze MTs. Stable at –70 centigrade for 3 months.

GENE INFORMATION

Official Symbol	Tubulin
Synonyms	Tubulin

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Activity	 MT activated kinesin ATPase reaction. Reactions were performed using the kinesin ELIPA assay kit. Reactions contained either MTs or KHC alone or the combination of MTs and KHC. Triplicate reactions were measured in a spectrophotometer at 360 nm. Readings were taken once every 30 s for a total reaction time of 20 min.
SDS-PAGE	 Microtubule (MT) binding protein spin-down assay. > 80% of Tubulin is in pellet (P) after spin-down. MAPs bind to MTs and end up in pellet while BSA does not and stays in supernatant (S).

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