

Protocol for Taxol Janelia Fluor® 646 (Catalog # 6266)

In Brief

Taxol (often referred to as Paclitaxel) is a diterpenoid that binds to tubulin. It promotes and stabilizes tubulin polymerization, which accounts for its anti-mitotic and cytotoxic action. The conjugation of a fluorescent dye to taxol offers a convenient way to image the microtubule cytoskeleton of a cell; well known fluorescent probes based on this principle are: [Flutax 1](#) (Catalog # 2226) and [Flutax 2](#) (Catalog # 6254).

Taxol Janelia Fluor® 646 is a tubulin fluorescent probe that incorporates the red fluorogenic dye, [Janelia Fluor® 646](#) (Catalog # 6148). The fluorogenicity of the dye renders this probe non-fluorescent until bound to tubulin, enabling no-wash experimental protocols. Guidelines for using this product in a no-wash imaging protocol are provided below.

Protocol

- Prepare a stock solution of Taxol Janelia Fluor® 646 in DMSO. *Stock solutions can be aliquoted and stored for up to 1 month at ≤-20°C.*
- Dilute the stock solution into warm media (37°C) and place into a pre-warmed box (for storage in the incubator). *Aqueous working solutions should be prepared and used on the same day.*
- Apply to live cells at a concentration of 3 μM. *Lower concentrations can be used and the concentration should be optimized for individual experiments.*
- Incubate for 1 hour at 37°C prior to imaging. If preferred, a washing protocol can be used. *Should this step be required, rinse the cells three times with 1x PBS and 2% BSA and apply fresh media prior to imaging.*
- Image cells using appropriate filters for Taxol Janelia Fluor® 646. Excitation maximum = 655 nm; emission maximum = 671 nm.

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