

OG488 Diacetate Taxol Conjugate *Cell-Permeable*

 Catalog number: 23176
 Unit size: 5x50 ug

Component	Storage	Amount (Cat No. 23176)
OG488 Diacetate Taxol Conjugate *Cell-Permeable*	Freeze (< -15 °C), Minimize light exposure	5x50 ug

OVERVIEW

OG488 Diacetate Taxol Conjugate is the same compound as Oregon Green™ 488 Taxol, bis-acetate. Taxol, also known as Paclitaxel, is an anticancer agent. Taxol is known to promote tubulin assembly into stable aggregated structures. The OG488 Diacetate Taxol Conjugate is an effective fluorescent probe for studying microtubules in live cells. The diacetate blocking groups are readily cleaved in live cells by intracellular esterases to release the bright green OG488 fluorophore. The fluorescent label OG488 Diacetate is attached to paclitaxel by derivatization of the 7-β-hydroxy group of native paclitaxel, minimizing the interference of OG488 fluorophore on the binding of the probe to microtubules. OG488 Diacetate Taxol Conjugate has been successfully used for live-cell tubulin labeling. It is much more cell-permeable than OG488 Taxol Conjugate (#23175).

AT A GLANCE
Protocol Summary

1. Prepare cells with test compounds at a density of 5×10^5 to 1×10^6 cells/mL.
2. Prepare and add the OG488 Diacetate Taxol Conjugate working solution to the cells.
3. Incubate at 37°C for 60 minutes.
4. Use a fluorescence microscope with a FITC filter set to measure fluorescence intensity.

Note: This protocol is intended as a general guide and should be adjusted to meet your specific requirements.

KEY PARAMETERS
Fluorescence microscope

Emission	FITC filter set
Excitation	FITC filter set
Recommended plate	Black wall/clear bottom

CELL PREPARATION
Prepare Cells

1. For each sample, prepare cells in 1 mL of warm medium or buffer at a density of 5×10^5 to 1×10^6 cells/mL.

Note: Each cell line should be individually assessed to determine its optimal cell density.

PREPARATION OF STOCK SOLUTIONS

Unless otherwise noted, all unused stock solutions should be divided into single-use aliquots and stored at -20 °C after preparation. Avoid repeated freeze-thaw cycles

OG488 Diacetate Taxol Conjugate Stock Solution (100X)

1. Add 100 µL of DMSO (not provided) to the OG488 Diacetate Taxol Conjugate vial and mix thoroughly.

Note: Aliquot and store any unused OG488 Diacetate Taxol Conjugate stock solution at -20°C. Avoid multiple freeze-thaw cycles.

PREPARATION OF WORKING SOLUTION
OG488 Diacetate Taxol Conjugate Working Solution (1X)

1. To prepare a 1X OG488 Diacetate Taxol Conjugate working solution, add 10 µL of OG488 Diacetate Taxol Conjugate stock solution and 1 mM ReditUse™ Probenecid (AAT Cat# 20061, not provided) to 1 mL of HHBS [Hanks' Buffer with 20 mM Hepes] (AAT Cat# 20011, not provided) or your preferred buffer. Mix thoroughly.

Note: For best results, we recommend preparing a fresh OG488 Diacetate Taxol Conjugate working solution each time you use it. The working solution remains stable for a few hours.

Note: The calculations above assume that 100 µL of working solution will be used for each slide or sample. Please adjust the concentrations of OG488 Diacetate Taxol Conjugate and ReditUse™ probenecid to match your specific staining and cell conditions.

SAMPLE EXPERIMENTAL PROTOCOL

1. Prepare cell samples as needed.
2. Remove the cell growth medium, then wash the cells with PBS (not included) or another buffer of your choice.
3. Add 100 µL of OG488 Diacetate Taxol Conjugate working solution to the cells, then place them in a 37°C incubator for 60 minutes.

Note: The incubation time will vary based on the specific cell type and cell concentration. Be sure to adjust the incubation time to best suit each experiment.
4. Remove the working solution and wash the cells twice with PBS or a preferred buffer.
5. Cover the cells with HHBS (or a buffer of your choice) containing 1 mM probenecid. Then, use a fluorescence microscope equipped with a FITC filter set to monitor the fluorescence intensity.

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