

Paclitaxel

✓ 1 mg

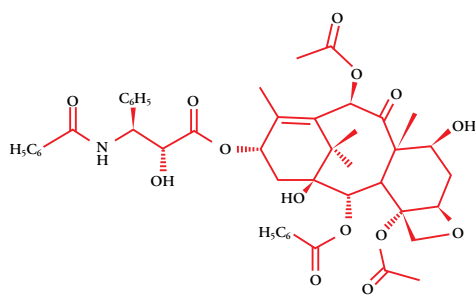
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For Research Use Only. Not For Use In Diagnostic Procedures.

Background: Paclitaxel belongs to the taxane family of antitumor and antileukemic agents (3). By binding to β -tubulin and promoting the assembly of microtubules, paclitaxel prevents microtubular depolymerization and blocks normal cell division (1–3). The microtubule dysfunction induced by paclitaxel results in aberrant cell mitosis and sometimes apoptosis. The IC_{50} of paclitaxel-induced mitotic block is 4 nM (4).

Molecular Formula: $C_{47}H_{51}NO_{14} \cdot H_2O$



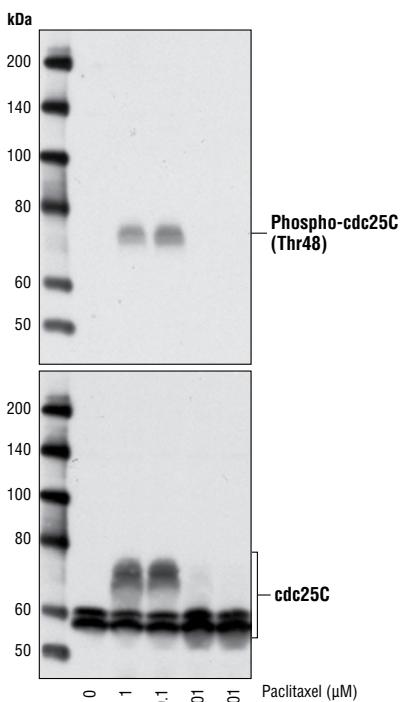
Molecular Weight: 853.92 g/mol

Purity: >99.5%

Directions for Use: Paclitaxel is supplied as 1 mg powder. Store at or below -20°C. Before use, dissolve powder in 1.15 ml DMSO to make a 1 mM paclitaxel stock solution. For working concentrations of 100 nM–1000 nM, dilute DMSO stock 1:10,000 to 1:1000. Treat cells with the desired concentration for 6–48 hours.

Background References:

- (1) Rowinsky, E.K. et al. (1990) *J. Natl. Cancer Inst.* 82, 1247–1259.
- (2) Jordan, A. et al. (1998) *Med. Res. Rev.* 18, 259–296.
- (3) Abal, M. et al. (2003) *Curr. Cancer Drug Targets* 3, 193–203.
- (4) Long, B.H. and Fairchild, C.R. (1994) *Cancer Res.* 54, 4355–4361.



Western blot analysis of extracts from HT29 cells, either untreated or treated with indicated concentration of paclitaxel using Phospho-Cdc25C (Thr48) Antibody #9527 (upper) or control Cdc25C (5H9) Rabbit mAb Antibody #4688 (lower).

Storage: Store lyophilized or in solution at -20°C, desiccated. Protect from light. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.