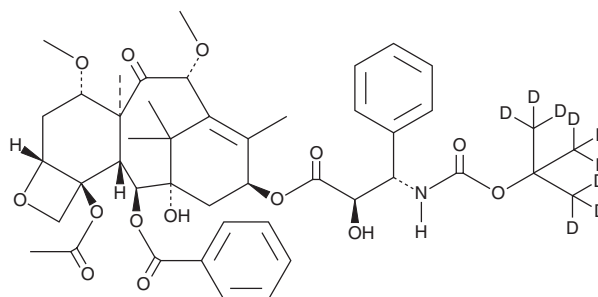


# PRODUCT INFORMATION



## Cabazitaxel-d<sub>9</sub> Item No. 28488

**CAS Registry No.:** 1383572-19-7  
**Formal Name:** (αR,βS)-β-[[[1,1-di(methyl-d<sub>3</sub>)ethoxy-2,2,2-d<sub>3</sub>] carbonyl]amino]-α-hydroxy-benzenepropanoic acid, (2aR,4S,4aS,6R,9S,11S,12S,12aR,12bS)-12b-(acetyloxy)-12-(benzyloxy)-2a,3,4,4a,5,6,9,10,11,12,12a,12b-dodecahydro-11-hydroxy-4,6-dimethoxy-4a,8,13,13-tetramethyl-5-oxo-7,11-methano-1H-cyclodeca[3,4]benz[1,2-b]oxet-9-yl ester  
**MF:** C<sub>45</sub>H<sub>48</sub>D<sub>9</sub>NO<sub>14</sub>  
**FW:** 845.0  
**Chemical Purity:** ≥95% (Cabazitaxel)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>9</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Cabazitaxel-d<sub>9</sub> is intended for use as an internal standard for the quantification of cabazitaxel (Item No. 22262) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Cabazitaxel-d<sub>9</sub> is supplied as a solid. A stock solution may be made by dissolving the cabazitaxel-d<sub>9</sub> in the solvent of choice, which should be purged with an inert gas. Cabazitaxel-d<sub>9</sub> is soluble in organic solvents such as methanol and DMSO.

### Description

Cabazitaxel is a second generation semisynthetic taxane derived from 10-deacetylbaaccatin III (Item No. 22261).<sup>1</sup> It stabilizes microtubule assembly by reducing lag time for tubulin assembly (LT<sub>50</sub> = 100 nM) and the rate of cold-induced microtubule depolymerization (IC<sub>50s</sub> = 100-250 nM) *in vitro*. Cabazitaxel inhibits proliferation of P388, HL-60, Calc18, and KB cells (IC<sub>50s</sub> = 4-41 nM), as well as P-glycoprotein-expressing, drug-resistant versions of these cell lines (IC<sub>50s</sub> = 16-414 nM). *In vivo*, cabazitaxel dose-dependently reduces tumor growth in docetaxel-susceptible N87 human gastric carcinoma and docetaxel-resistant UISO BCA-1 breast cancer mouse xenograft models. Formulations containing cabazitaxel have been used in combination with prednisone in the treatment of hormone-refractory metastatic prostate cancer.

### Reference

1. Vrignaud, P., Sémioud, D., Lejeune, P., *et al.* Preclinical antitumor activity of cabazitaxel, a semisynthetic taxane active in taxane-resistant tumors. *Clin. Cancer Res.* **19(11)**, 2973-2983 (2013).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM