

# PRODUCT INFORMATION



## 7-oxo Staurosporine

Item No. 23346

**CAS Registry No.:** 125035-83-8  
**Formal Name:** (9S,10R,11R,13R)-10,11,12,13-tetrahydro-10-methoxy-9-methyl-11-(methylamino)-9,13-epoxy-1H,9H-diiindolo[1,2,3-gh:3',2',1'-lm]pyrrolo[3,4-j][1,7]benzodiazonine-1,3(2H)-dione

**Synonyms:** BMY 41950, RK-1409

**MF:** C<sub>28</sub>H<sub>24</sub>N<sub>4</sub>O<sub>4</sub>

**FW:** 480.5

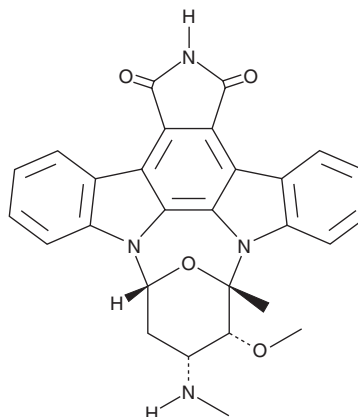
**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Bacterium/*Streptomyces* sp.



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

### Laboratory Procedures

7-oxo Staurosporine is supplied as a solid. A stock solution may be made by dissolving the 7-oxo staurosporine in the solvent of choice. 7-oxo Staurosporine is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide, which should be purged with an inert gas.

### Description

7-oxo Staurosporine is an antibiotic originally isolated from *S. platensis* with diverse biological activities.<sup>1-4</sup> It inhibits PKC, PKA, phosphorylase kinase, EGFR, and c-Src *in vitro* (IC<sub>50</sub>s = 9, 26, 5, 200, and 800 nM, respectively).<sup>2</sup> 7-oxo Staurosporine induces cell cycle arrest in the G<sub>2</sub>/M phase in human leukemia K562 cells with a minimal effective dose (MED) of 30 ng/ml.<sup>1</sup> It is cytotoxic to P388 mouse leukemia cells that are resistant and susceptible to doxorubicin (Item No. 15007; IC<sub>50</sub>s = 27 and 45 nM, respectively).<sup>3</sup> 7-oxo Staurosporine inhibits growth of the mycelial, but not yeast form of *C. albicans*, *C. krusei*, *C. tropicalis*, and *C. lusitanae* (MICs = 3.1-25 µg/ml).<sup>5</sup> It increases sphingomyelin synthesis in CHO-K1 cells when used at a concentration of 50 nM.<sup>4</sup>

### References

1. Osada, H., Koshino, H., Kudo, T., et al. *J. Antibiot. (Tokyo)* **45(2)**, 189-194 (1992).
2. Caravatti, G., Meyer, T., Fredenhagen, A., et al. *Bioorg. Med. Chem. Lett.* **4(3)**, 399-404 (1994).
3. Wakusawa, S., Inoko, K., Miyamoto, K.-I., et al. *J. Antibiot. (Tokyo)* **46(2)**, 353-355 (1993).
4. Maekawa, M., Lee, M., Wei, K., et al. *Sci. Rep.* **6:35762**, (2016).
5. Hwang, E.-I., Yun, B.-S., Lee, S.-H., et al. **14(5)**, 1067-1070 (2004).

#### 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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