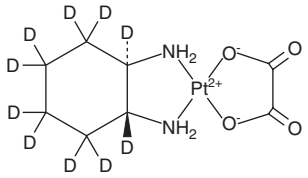
PRODUCT INFORMATION

Oxaliplatin-d_{10}

Item No. 34408

CAS Registry No.: 1132819-16-9
Formal Name: (SP-4-2)-[(1R,2R)-1,2-cyclohexane-1,2,3,3,4,4,5,5,6,6-d_{10}-diamine-κN^1,κN^2][ethanedioato(2-)-κO^1,κO^2]-platinum
Synonym: Lipoxal-d_{10}
MF: $C_8H_4D_{10}N_2O_4Pt$
FW: 407.4
Chemical Purity: ≥95% (Oxaliplatin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_{10}); ≤1% d_0
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

Oxaliplatin-d_{10} is intended for use as an internal standard for the quantification of oxaliplatin (Item No. 13106) 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).

Oxaliplatin-d_{10} is supplied as a solid. A stock solution may be made by dissolving the oxaliplatin-d_{10} in the solvent of choice, which should be purged with an inert gas. Oxaliplatin-d_{10} is slightly soluble in DMSO.

Description

Oxaliplatin is a platinum-containing DNA-crosslinking agent.[1] It induces the formation of DNA inter- and intrastrand crosslinks and DNA-protein adducts, inhibits DNA and RNA synthesis, and induces apoptosis in cancer cells. Oxaliplatin is cytotoxic to cisplatin-sensitive A2780(1A9) and KB-3-1 cells and cisplatin-resistant A2780-E(80) and KB-CP20 cells (IC_{50}s = 0.12, 0.39, 4.7, and 2.7 µM, respectively).[2] It reduces tumor growth in an HCCLM3 mouse xenograft model when administered at doses of 5 or 10 mg/kg once per week.[3] Formulations containing oxaliplatin have been used in the treatment of advanced colorectal cancer and as adjuvants in stage III colon cancer.

References

1. Alcindor, T. and Beauger, N. Oxaliplatin: A review in the era of molecularly targeted therapy. *Curr. Oncol.* **18(1)**, 18-25 (2011).
2. Rixe, O., Ortuzar, W., Alvarez, M., *et al.* Oxaliplatin, tetraplatin, cisplatin, and carboplatin: Spectrum of activity in drug-resistant cell lines and in the cell lines of the National Cancer Institute's Anticancer Drug Screen panel. *Biochem. Pharmacol.* **52(12)**, 1855-1865 (1996).
3. Wang, Z., Zhou, J., Fan, J., *et al.* Oxaliplatin induces apoptosis in hepatocellular carcinoma cells and inhibits tumor growth. *Expert Opin. Investig. Drugs* **18(11)**, 1595-1604 (2009).

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