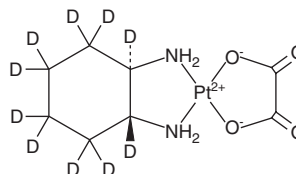


# PRODUCT INFORMATION



## Oxaliplatin-d<sub>10</sub> 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<sub>10</sub>-diamine-κN<sup>1</sup>,κN<sup>2</sup>][ethanedioato(2-)-κO<sup>1</sup>,κO<sup>2</sup>]-platinum  
**Synonym:** Lipoxal-d<sub>10</sub>  
**MF:** C<sub>8</sub>H<sub>4</sub>D<sub>10</sub>N<sub>2</sub>O<sub>4</sub>Pt  
**FW:** 407.4  
**Chemical Purity:** ≥95% (Oxaliplatin)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>10</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

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

### Description

Oxaliplatin is a platinum-containing DNA-crosslinking agent.<sup>1</sup> 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<sub>50</sub>s = 0.12, 0.39, 4.7, and 2.7 μM, respectively).<sup>2</sup> It reduces tumor growth in an HCCLM3 mouse xenograft model when administered at doses of 5 or 10 mg/kg once per week.<sup>3</sup> 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).

#### 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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