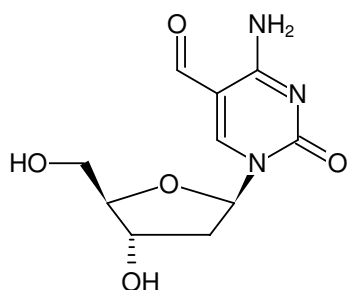


**5-Formyl-dC**

fdC, 5-Formyl-2'-deoxycytidine

Cat. No.	Amount
N-1069-5	5 mg



Structural formula of 5-Formyl-dC

**For general laboratory use.****Shipping:** shipped at ambient temperature**Storage Conditions:** store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

**Shelf Life:** 24 months after date of delivery**Molecular Formula:** C<sub>10</sub>H<sub>13</sub>N<sub>3</sub>O<sub>5</sub>**Molecular Weight:** 255.23 g/mol**Exact Mass:** 255.09 g/mol**CAS#:** 137017-45-9**Purity:** ≥ 95 % (HPLC)**Form:** solid**Color:** white to off-white**Spectroscopic Properties:** λ<sub>max</sub> 283 nm, ε 11.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**Epigenetic research<sup>[1]</sup>Use in epigenetic therapy<sup>[2]</sup>Metabolism of dC substituted at position 5<sup>[3,4]</sup>**Selected References:**

[1] Schroeder (2014) Synthesis of a DNA promoter segment containing all four epigenetic nucleosides: 5-Methyl-, 5-hydroxymethyl-, 5-formyl-, and 5-carboxy-2'-deoxycytidine. *Angew. Chem. Int. Ed.* **53**:315.

[2] Zauri *et al.* (2015) CDA directs metabolism of epigenetic nucleosides revealing a therapeutic window in cancer. *Nature* **524**:114.

[3] Schiesser *et al.* (2013) Deamination, oxidation, and C-C bond cleavage reactivity of 5-hydroxymethylcytosine, 5-formylcytosine, and 5-carboxycytosine. *J. Am. Chem. Soc.* **135** (39):14593.

[4] Madugundu *et al.* (2014) Hydroxyl-radical-induced oxidation of 5-methylcytosine in isolated and cellular DNA. *Nucleic Acids Res.* **42** (11):7450.