

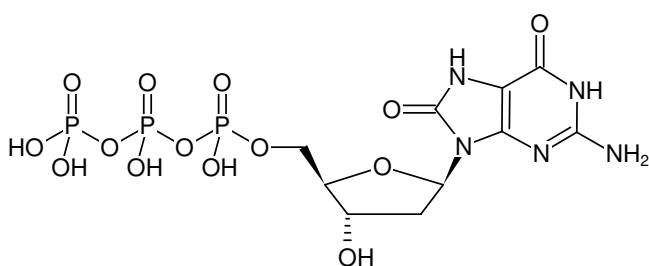
**8-Oxo-dGTP**

8-Hydroxy-dGTP

8-Oxo-2'-deoxyguanosine-5'-triphosphate, Sodium salt

8-Hydroxy-2'-deoxyguanosine-5'-triphosphate, Sodium salt

Cat. No.	Amount
NU-1117S	30 µl (10 mM)
NU-1117L	5 x 30 µl (10 mM)



Structural formula of 8-Oxo-dGTP

**For general laboratory use.****Shipping:** shipped on gel packs**Storage Conditions:** store at -20 °C

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

**Shelf Life:** 12 months after date of delivery**Molecular Formula:** C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>14</sub>P<sub>3</sub> (free acid)**Molecular Weight:** 523.18 g/mol (free acid)**Exact Mass:** 522.99 g/mol (free acid)**CAS#:** 139307-94-1**Purity:** ≥ 95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 10 mM - 11 mM**pH:** 7.5 ±0.5**Spectroscopic Properties:** λ<sub>max</sub> 245 nm, ε 12.3 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**Influence on base excision repair<sup>[1]</sup>Influence on erroneous incorporation by DNA-polymerases<sup>[2]</sup>Hydrolysis to 8-oxo-dGMP by E.-coli MutT<sup>[3]</sup>Triggering cell senescence through formation of ROS<sup>[4]</sup>**Selected References:**

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[2] Katakuchi *et al.* (2010) Critical amino acids in human DNA polymerases η and κ involved in erroneous incorporation of oxidized nucleotides. *Nucleic Acids Res.* **38**:859.

[3] Nakamura *et al.* (2010) Structural and dynamic features of the MutT protein in the recognition of nucleotides with the mutagenic 8-oxoguanine base. *J. Biol. Chem.* **285**:444.

[4] Raia *et al.* (2009) Continuous elimination of oxidized nucleotides is necessary to prevent rapid onset of cellular senescence. *PNAS USA* **106**:169.

Yoshida H. *et al.* (2011) Increase in CpG DNA-induced inflammatory responses by DNA oxidation in macrophages and mice. *Free Radic Biol Med.* **51** (2):424.

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