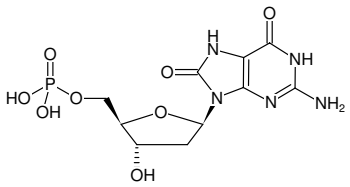
DATA SHEET

Jena Bioscience

8-Oxo-dGMP

8-Hydroxy-dGMP
8-Oxo-2'-deoxyguanosine-5'-monophosphate, Sodium salt
8-Hydroxy-2'-deoxyguanosine-5'-monophosphate, Sodium salt

Cat. No.	Amount
NU-1153S	50 µl (10 mM)
NU-1153L	5 x 50 µl (10 mM)



Structural formula of 8-Oxo-dGMP

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: $C_{10}H_{14}N_5O_8P$ (free acid)

Molecular Weight: 363.22 g/mol (free acid)

Exact Mass: 363.06 g/mol (free acid)

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_{max} 245 nm, ε 12.3 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5)

Applications:
Crystal structure in complex with human MTH1[1]

Hydrolysis by MutT[2]

Marker of oxidative stress[3]

Parameters of pyrophposphohydrotase reaction of MutT[4]

Solution structure of complex with MutT[5]

Specific Ligands:

Tight binding to MutT[6]

Selected References:

[1] Svensson *et al.* (2011) Crystal structure of human MTH1 and 8-oxo-dGMP product complex. *FEBS Letters* **585**:2617.

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

[3] Sangsuwan *et al.* (2008) The nucleotide pool, a target for low-dose y-ray induced oxidative stress. *Radiation Research* **170**:776.

[4] Xia *et al.* (2005) Transient state kinetic studies of the MutT-catalyzed nucleoside triphosphate pyrophosphohydrolase reaction. *Biochemistry* **44**:15334.

[5] Massiah *et al.* (2004) Solution structure, mutagenesis, and NH-exchange studies of the MutT enzyme Mg2+-8-oxo-GMP complex. *J. Molecular Structure* **700 (1-3)**:247.

[6] Saraswat *et al.* (2004) Mutational, NMR, and NH-exchange studies of the tight and selective binding of 8-oxo-GMP by the MutT pyrophosphohydrolase. *Biochemistry* **43**:3404.

Kaminsky *et al.* (2007) The c-Myc Target Gene Rcl (C6orf108) Encodes a Noval Enzyme, Deoxynucleoside 5'-monophosphate N-Glycosidase. *J. Biol. Chem.* **282 (11)**: 8150.