



## Product Specifications

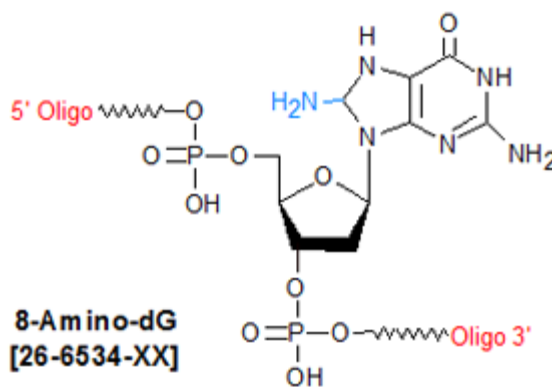
Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2'-5' linked Oligos

## Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

### 8-Amino-dG

|                          |                    |
|--------------------------|--------------------|
| Category                 | Structural Studies |
| Modification Code        | 8-Am-dG            |
| Reference Catalog Number | 26-6534            |
| 5 Prime                  | Y                  |
| 3 Prime                  | Y                  |
| Internal                 | Y                  |
| Molecular Weight(mw)     | 344.22             |



8-Amino-deoxyGuanosine (8-Amino-dG) is an 8-amino-purine that is most commonly used to study the structural and functional properties of triple helices. The 8-amino group is able to form an additional Hoogsteen purine-pyrimidine hydrogen bond, which serves to increase triple helix stability (1). 8-Amino-dG-modified oligonucleotides are also used in oxidative DNA damage/repair studies. The industrial solvent 2-nitropropane generates 8-Amino-dG as a DNA lesion, which in this initial study appears to be weakly mutagenic (2). **References**

1. Cubero, E., Avino, A., de la Torre, B.G., Frieden, M., Eritja, R., Luque, F.J., Gonzalez, C., Orozco, M. Hoogsteen-based parallel-stranded duplexes of DNA. The effect of 8-amino derivatives. *J. Am. Chem. Soc.* (2002), **124**: 3133-3142.
2. Venkatarangan, L., Sivaprasad, A., Johnson, F., Basu, A.K. Site-specifically located 8-amino-2'-deoxyguanosine: thermodynamic stability and mutagenic properties in *Escherichia coli*. *Nucleic Acids Res.* (2001), **29**: 1458-1463.