

# PRODUCT INFORMATION



## Sp-Guanosine-5'-O-(1-thiodiphosphate) (sodium salt)

Item No. 38564

**Formal Name:** guanosine, 5'→P'-ester with [P'(S)]-thiodiphosphoric acid ((HO)2P(O)OP(O)(OH)(SH)), trisodium salt

**Synonym:** Sp-GDP-α-S

**MF:** C<sub>10</sub>H<sub>12</sub>N<sub>5</sub>O<sub>10</sub>P<sub>2</sub>S • 3Na

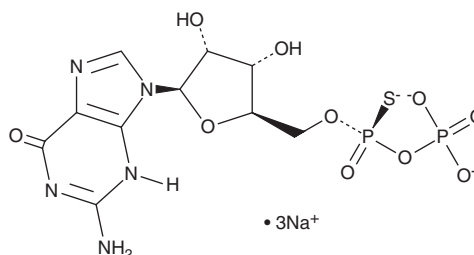
**FW:** 525.2

**Purity:** ≥95%

**Supplied as:** A solution in water

**Storage:** -80°C

**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Description

Sp-Guanosine-5'-O-(1-thiodiphosphate) (Sp-GDP-α-S) is an isomer of the sulfur-containing nucleotide derivative GDP-α-S.<sup>1</sup> It has been used to evaluate the stereospecificity of several GDP- and GTP-dependent enzymes, including guanylate cyclase and GTPases such as transducin.<sup>2,3</sup>

### References

1. Marquetant, R. and Good, R.S. An improved separation of diastereomers of nucleoside phosphorothioates using reversed-phase high-performance liquid chromatography. *J. Chromatogr. A* **280**, 386-389 (1983).
2. Senter, P.D., Eckstein, F., Mülsch, A., *et al.* The stereochemical course of the reaction catalyzed by soluble bovine lung guanylate cyclase. *J. Biol. Chem.* **258**(11), 6741-6745 (1983).
3. Yamanaka, G., Eckstein, F., and Stryer, L. Stereochemistry of the guanyl nucleotide binding site of transducin probed by phosphorothioate analogues of GTP and GDP. *Biochemistry* **24**(27), 8094-8101 (1985).

#### 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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