

6-Thio-Guanosine Kit

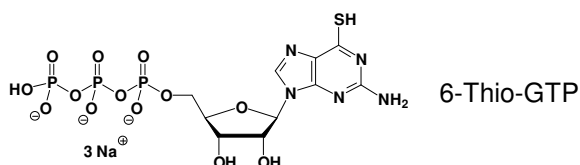
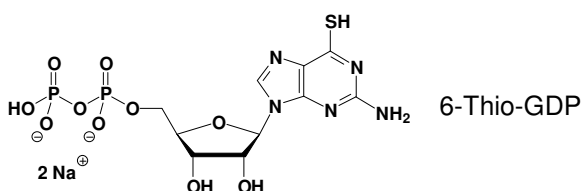
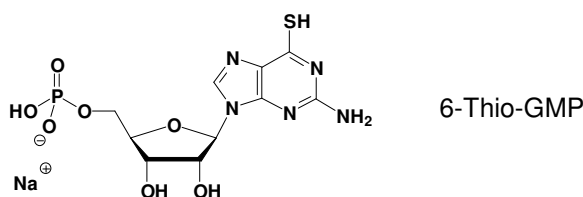
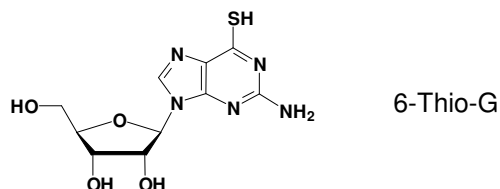
Cat.No.: NK-103

Kit Contents

6-Thio-Guanosine Analogs	Cat. No.	Amount
6-Thio-G	N-1054	5 mg
6-Thio-GMP	NU-1121	200 Units
6-Thio-GDP	NU-1120	200 Units
6-Thio-GTP	NU-1106	200 Units

1 Unit = 1 µl of a 10 mM solution

Structures



Introduction

6-Thio-Guanosines are metabolites of Azathioprine, a drug used in the therapy of chronic inflammatory and auto-immune diseases. The immunosuppressive properties of Azathioprine are very likely caused by binding of 6-Thio-GTP to the GTPase Rac.

Kit Description

The 6-Thio-Guanosine Kit contains a set of 4 typical 6-Thio-Guanosine analogs (Nucleoside, 5'-Mono, Di and Triphosphate).

Selected References:

Du *et al.* (2007) Enhanced cardiac allograft survival by Vav1-Rac signalling blockade in a mouse model. *Transplant Immunology* **18** (1):53.

Pestova *et al.* (2006) Specific functional interactions of nucleotides at key - 3 and + 4 positions flanking the initiation codon with components of the mammalian 48S translation initiation complex. *Genes&Development* **20**:624.

Tiede *et al.* (2003) CD28-dependent Rac1 activation is the molecular target of azathioprine in primary human CD4 + T lymphocytes. *J. Clin. Invest.* **111**:1133.

Fishback *et al.* (1984) Interaction of 6-mercapto-GTP with bovine brain tubulin - equilibrium aspects. *J. Biol. Chem.* **259** (3):1968.

Poland *et al.* (1997) Entrapment of 6-thiophosphoryl-IMP in the activesite of crystalline adenylosuccinate synthetase from *Escherichia coli*. *J. Biol. Chem.* **272** (24):15200.

Yarbrough *et al.* (1985) Kinetics of interaction of 2-amino-6-mercapto-9-beta-ribofuranosylpurine 5'-triphosphate with bovine brain tubulin. *Biochemistry-US* **24** (7):1708.

Storage and Stability

Short term exposure (up to 1 week cumulative) to ambient temperature is possible. Long term storage is recommended at < -20°C. If properly stored, Jena Bioscience guarantees optimal performance of the compounds for 12 months after date of delivery.