8-Azaguanine
Cell Culture tested

Product Number A 5284
Storage Temperature -0 °C

**Product Description**
Molecular Formula: C₄H₄N₆O
Molecular Weight: 152.1
CAS Number: 134-58-7
Synonyms: 2-amino-6-hydroxy-8-azapurine, 2-amino-6-oxo-8-azapurine, 5-amino-1,4-dihydro-7H-1,2,3-triazolo[4,5-d]pyrimidin-7-one

This product is a Hybri-Max® product and is hybridoma tested. It is γ-irradiated and tested for endotoxin levels.

8-Azaguanine is a triazolo analog of guanine that is a known inhibitor of purine nucleotide biosynthesis. In normal cells, the enzyme hypoxanthine-guanine-phosphoribosyl transferase (HGPRTase) can incorporate 8-azaguanine via the formation of 8-azaguanosine monophosphate (azaGMP), which leads to the blockage of purine nucleotide synthesis. Cells which are deficient in HGPRTase cannot incorporate 8-azaguanine in vivo and thus continue to function. 8-Azaguanine was the first purine analog demonstrated to have carcinostatic effects in mouse malignancies.

The synthesis of phosphonate acyclic derivatives of 8-azaguanine as inhibitors of purine nucleoside phosphorylase has been described. A series of acyclic nucleotide analogs of 8-azaguanine and other 8-azapurines has been synthesized, and their antiviral activity investigated.

**Precautions and Disclaimer**
For Laboratory Use Only. Not for drug, household or other uses.

**Preparation Instructions**
The contents of this product may be reconstituted with 10 ml of sterile cell culture medium. Once reconstituted to 10 ml, each vial of this product contains 6.6 × 10⁻³ M 8-azaguanine and is designated as a 50× solution. The stock then may be diluted to 500 ml and stored at 2-8 °C, or stored in aliquote stored at -20 °C.

**References**
1. The Merck Index, 12th ed., Entry# 928.


Hybri-Max is a registered trademark of the Sigma-Aldrich Corporation.

Sigma brand products are sold through Sigma-Aldrich, Inc. Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.