

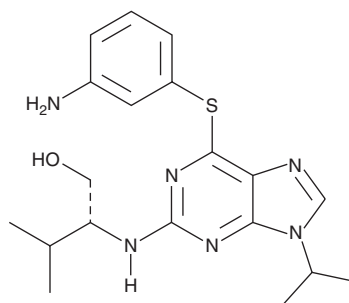
# PRODUCT INFORMATION



## Diminutol

Item No. 18237

**CAS Registry No.:** 361431-33-6  
**Formal Name:** (2R)-2-[[6-[(3-aminophenyl)thio]-9-(1-methylethyl)-9H-purin-2-yl]amino]-3-methyl-1-butanol  
**Synonym:** NG72  
**MF:** C<sub>19</sub>H<sub>26</sub>N<sub>6</sub>O  
**FW:** 386.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 226, 249, 324 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

Diminutol is supplied as a crystalline solid. A stock solution may be made by dissolving the diminutol in the solvent of choice, which should be purged with an inert gas. Diminutol is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of diminutol in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Diminutol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, diminutol should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Diminutol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Diminutol is a cell-permeable purine derivative that inhibits the NADP-dependent oxidoreductase, NQO1 (K<sub>i</sub> = 1.72 μM), to destabilize microtubules and disrupt mitosis.<sup>1</sup> At 50 μM, it directly affects tubulin polymerization in *Xenopus* egg extracts without interfering with the activity of Cdk1, DNA replication, or actin polymerization.<sup>1</sup>

### Reference

1. Wignall, S.M., Gray, N.S., Chang, Y.-T., *et al.* Identification of a novel protein regulating microtubule stability through a chemical approach. *Chem. Biol.* **11**, 135-146 (2004).

#### 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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