# **PRODUCT** INFORMATION



## **Glucocorticoid Resistance Inhibitor**

Item No. 25553

CAS Registry No.:	947018-15-7	N
Formal Name:	4-cyclopropyl-5-(4-pyridinyl)-2-	
	pyrimidinamine	
MF:	$C_{12}H_{12}N_4$	$\wedge$
FW:	212.3	$A \downarrow$
Purity:	≥98%	
UV/Vis.:	λ <sub>max</sub> : 274 nm	
Supplied as:	A crystalline solid	N
Storage:	-20°C	
Stability:	≥4 years	NH <sub>2</sub>
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

#### Laboratory Procedures

Glucocorticoid resistance inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the glucocorticoid resistance inhibitor in the solvent of choice, which should be purged with an inert gas. Glucocorticoid resistance inhibitor is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of glucocorticoid resistance inhibitor in these solvents is approximately 10 and 5 mg/ml, respectively.

Glucocorticoid resistance inhibitor is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, glucocorticoid resistance inhibitor should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Glucocorticoid resistance inhibitor has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

#### Description

Glucocorticoid resistance inhibitor is an inhibitor of glucocorticoid resistance.<sup>1</sup> It inhibits cell growth of the T cell acute lymphoblastic leukemia (T-ALL) cell line CUTTL1 when used in combination with dexamethasone (EC<sub>50</sub> = 28  $\mu$ M) and is less effective when used alone (EC<sub>50</sub> = 294  $\mu$ M). Glucocorticoid resistance inhibitor (6.25-50 µM) preferentially inhibits growth of CUTTL1 cells expressing high levels of the glucocorticoid receptor over cells expressing low levels. It upregulates the gene expression and protein levels of the glucocorticoid receptor and induces expression of dexamethasone-regulated genes when used in combination with dexamethasone but not when used alone.

#### Reference

1. Cantley, A.M., Welsch, M., Ambesi-Impiombato, A., et al. Small molecule that reverses dexamethasone resistance in T-cell acute lymphoblastic leukemia (T-ALL). ACS Med. Chem. Lett. 5(7), 754-759 (2014).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFFTY 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.

#### WARRANTY AND LIMITATION OF REMEDY

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