

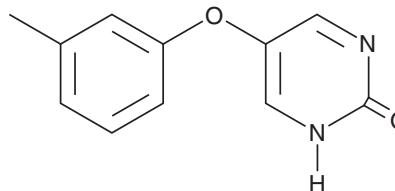
# PRODUCT INFORMATION



## MLR-1023

Item No. 21496

**CAS Registry No.:** 41964-07-2  
**Formal Name:** 5-(3-methylphenoxy)-2(1H)-pyrimidinone  
**Synonyms:** CP 26,154, NSC 314335  
**MF:** C<sub>11</sub>H<sub>10</sub>N<sub>2</sub>O<sub>2</sub>  
**FW:** 202.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 225, 276, 330 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

MLR-1023 is supplied as a crystalline solid. A stock solution may be made by dissolving the MLR-1023 in the solvent of choice. MLR-1023 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MLR-1023 in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

MLR-1023 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MLR-1023 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. MLR-1023 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

MLR-1023 is an allosteric activator of Lyn kinase (EC<sub>50</sub> = 63 nM).<sup>1</sup> It has no significant activity against a panel of related kinases. MLR-1023 is orally bioavailable and reduces blood glucose levels in mice subjected to an oral glucose tolerance test.<sup>1</sup> This effect is insulin-dependent, with MLR-1023 increasing insulin receptor sensitivity.<sup>2</sup> MLR-1023 produces a dose-dependent and durable glucose-lowering effect in chronically treated *db/db* mice without causing weight gain.<sup>2</sup>

### References

1. Saporito, M.S., Ochman, A.R., Lipinski, C.A., *et al.* MLR-1023 is a potent and selective allosteric activator of Lyn kinase *in vitro* that improves glucose tolerance *in vivo*. *J. Pharmacol. Exp. Ther.* **342**(1), 15-22 (2012).
2. Ochman, A.R., Lipinski, C.A., Handler, J.A., *et al.* The Lyn kinase activator MLR-1023 is a novel insulin receptor potentiator that elicits a rapid-onset and durable improvement in glucose homeostasis in animal models of type 2 diabetes. *J. Pharmacol. Exp. Ther.* **342**(1), 23-32 (2012).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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