

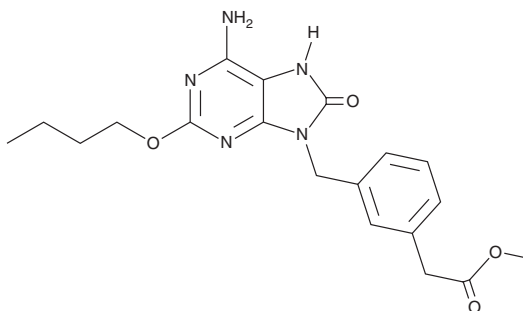
# PRODUCT INFORMATION



**SM-324405**

Item No. 29457

**CAS Registry No.:** 677773-91-0  
**Formal Name:** 3-[(6-amino-2-butoxy-7,8-dihydro-8-oxo-9H-purin-9-yl)methyl]-benzeneacetic acid, methyl ester  
**MF:** C<sub>19</sub>H<sub>23</sub>N<sub>5</sub>O<sub>4</sub>  
**FW:** 385.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 282 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

SM-324405 is supplied as a crystalline solid. A stock solution may be made by dissolving the SM-324405 in the solvent of choice, which should be purged with an inert gas. SM-324405 is soluble in the organic solvent DMSO at a concentration of approximately 100 mM.

## Description

SM-324405 is a toll-like receptor 7 (TLR7) agonist (EC<sub>50</sub> = 50.1 nM in a reporter assay using HEK293 cells expressing the human receptor).<sup>1</sup> It is selective for TLR7 over TLR8 (EC<sub>50</sub> = >10 μM). SM-324405 induces IFN production in isolated human peripheral blood mononuclear cells (PBMCs) with a minimum effective concentration (MEC) of 10 nM. It induces proliferation of isolated mouse, rat, and dog splenocytes (EC<sub>50</sub>s = 3.98, 6.31, and 12.59 nM, respectively).<sup>2</sup> SM-324405 (0.1 and 1 mg/kg, intratracheally) inhibits bronchoalveolar lavage fluid (BALF) eosinophil infiltration in a rat model of ovalbumin-sensitized and -challenged allergic airway inflammation.<sup>1</sup>

## References

1. Kurimoto, A., Hashimoto, K., Nakamura, T., *et al.* Synthesis and biological evaluation of 8-oxoadenine derivatives as toll-like receptor 7 agonists introducing the antedrug concept. *J. Med. Chem.* **53**(7), 2964-2972 (2010).
2. Biffen, M., Matsui, H., Edwards, S., *et al.* Biological characterization of a novel class of toll-like receptor 7 agonists designed to have reduced systemic activity. *Br. J. Pharmacol.* **166**(2), 573-586 (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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