

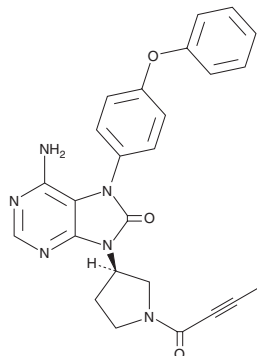
PRODUCT INFORMATION



ONO-4059

Item No. 32957

CAS Registry No.: 1351636-18-4
Formal Name: 6-amino-7,9-dihydro-9-[(3R)-1-(1-oxo-2-butyn-1-yl)-3-pyrrolidinyl]-7-(4-phenoxyphenyl)-8H-purin-8-one
Synonyms: GS-4059, ONO-WG-307, Tirabrutinib
MF: C₂₅H₂₂N₆O₃
FW: 454.5
Purity: ≥98%
UV/Vis.: λ_{max}: 215 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

ONO-4059 is supplied as a crystalline solid. A stock solution may be made by dissolving the ONO-4059 in the solvent of choice, which should be purged with an inert gas. ONO-4059 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ONO-4059 is approximately 1 mg/ml in ethanol and 30 mg/ml in DMSO and DMF.

ONO-4059 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ONO-4059 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ONO-4059 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ONO-4059 is an inhibitor of Bruton's tyrosine kinase (BTK; IC₅₀ = 2.2 nM).¹ It is selective for BTK over LCK, LYN, and Fyn at 1 μM.² ONO-4059 inhibits B cell proliferation and activation *in vitro* and reduces tumor growth in a TMD8 mouse xenograft model.^{1,3}

References

1. Burger, A. Bruton's tyrosine kinase (BTK) inhibitors in clinical trials. *Curr. Hematol. Malig. Rep.* **9(1)**, 44-49 (2014).
2. Yasuhiro, T., Yoshizawa, T., Daub, H., *et al.* Abstract 2021: ONO-WG-307, a novel, potent and selective inhibitor of Bruton's tyrosine kinase (Btk), results in sustained inhibition of the ERK, AKT and PKD signaling pathways. *Cancer Res.* **72(8 Supplement)**, 2021 (2012).
3. Kozaki, R., Yoshizawa, T., Tohda, S., *et al.* Abstract 3731: Development of a Bruton's tyrosine kinase (Btk) inhibitor, ONO-WG-307: Efficacy in ABC-DLBCL xenograft model – potential treatment for B-cell malignancies. *Blood* **118(21)**, 3731 (2011).

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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