

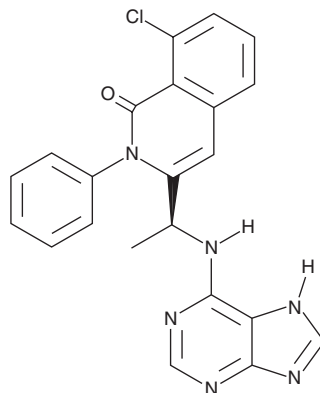
PRODUCT INFORMATION



IPI-145

Item No. 16800

CAS Registry No.: 1201438-56-3
Formal Name: 8-chloro-2-phenyl-3-[(1S)-1-(9H-purin-6-ylamino)ethyl]-1(2H)-isoquinolinone
Synonyms: Duvelisib, INK1197
MF: C₂₂H₁₇ClN₆O
FW: 416.9
Purity: ≥98%
UV/Vis.: λ_{max}: 213, 239, 270, 344 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

IPI-145 is supplied as a A crystalline solid. A stock solution may be made by dissolving the IPI-145 in the solvent of choice, which should be purged with an inert gas. IPI-145 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of IPI-145 in these solvents is approximately 10 mg/ml.

IPI-145 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, IPI-145 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. IPI-145 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

IPI-145 is a potent inhibitor of the phosphoinositide 3-kinase (PI3K) isoforms PI3K γ and PI3K δ (IC₅₀s = 0.24 and 50 nM, respectively).¹ It is orally bioavailable and selective.¹ As PI3K γ and PI3K δ are preferentially expressed in immune cells, IPI-145 has profound effects in collagen-induced and adjuvant-induced arthritis, ovalbumin-induced asthma, and systemic lupus erythematosus animal models.^{1,2} It also has potential applications in immunotherapy and in certain cancers.^{3,4}

References

1. Winkler, D.G., Faia, K.L., DiNitto, J.P., *et al.* PI3K- δ and PI3K- γ inhibition by IPI-145 abrogates immune responses and suppresses activity in autoimmune and inflammatory disease models. *Chem. Biol.* **20(11)**, 1364-1374 (2013).
2. Boyle, D.L., Kim, H.R., Topolewski, K., *et al.* Novel phosphoinositide 3-kinase δ,γ inhibitor: Potent anti-inflammatory effects and joint protection in models of rheumatoid arthritis. *J. Pharmacol. Exp. Ther.* **348(2)**, 271-280 (2014).
3. Mockler, M.B., Conroy, M.J., and Lysaght, J. Targeting T cell immunometabolism for cancer immunotherapy; understanding the impact of the tumor microenvironment. *Front. Oncol.* **4(107)**, 1-11 (2014).
4. Falasca, M., and Maffucci, T. Targeting p100 γ in gastrointestinal cancers: Attack on multiple fronts. *Front. Physiol.* **5(391)**, 1-10 (2014).

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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