

PRODUCT INFORMATION

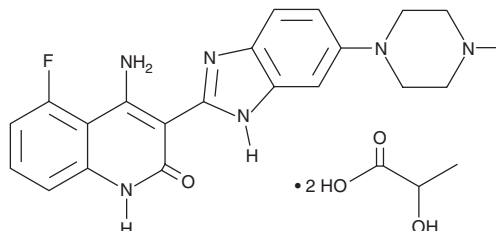


Dovitinib (lactate)

Item No. 41394

CAS Registry No.: 852433-84-2
Formal Name: 2-hydroxy-propanoic acid, compd. with 4-amino-5-fluoro-3-[6-(4-methyl-1-piperazinyl)-1H-benzimidazol-2-yl]-2(1H)-quinolinone (2:1)

Synonyms: CHIR258, TKI-258
MF: C₂₁H₂₁FN₆O • 2C₃H₆O₃
FW: 572.6
Purity: ≥98%
Supplied as: A 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

Dovitinib (lactate) is supplied as a solid. A stock solution may be made by dissolving the dovitinib (lactate) in the solvent of choice, which should be purged with an inert gas. Dovitinib (lactate) is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

Dovitinib is a multi-kinase inhibitor.¹ It inhibits the receptor tyrosine kinases FLT3, CSF1R, and c-Kit (IC₅₀s = 1, 36, and 2 nM, respectively), as well as FGFR1, FGFR3, VEGFR1-3, PDGFRα, and PDGFRβ (IC₅₀s = 8, 9, 10, 13, 8, 27, and 210 nM, respectively). Dovitinib inhibits the proliferation of human multiple myeloma cell lines expressing mutant, but not wild-type, FGFR3 (IC₅₀ = 90-550 and >2,500 nM, respectively). It decreases FGF-induced ERK1/2 phosphorylation and induces apoptosis in patient-derived multiple myeloma cells when used at a concentration of 500 nM. Dovitinib (3-300 mg/kg for eight days) inhibits bFGF-induced angiogenesis in a Matrigel™ plug assay in mice.² It reduces tumor growth in KM12L4A colon, DU145 prostate, and MV4-11 acute myelogenous leukemia mouse xenograft models with ED₅₀ values of 17, 23, and 3 mg/kg per day, respectively.

References

1. Trudel, S., Li, Z.H., Wei, E., *et al.* CHIR-258, a novel, multitargeted tyrosine kinase inhibitor for the potential treatment of t(4;14) multiple myeloma. *Blood* **105**(7), 2941-2948 (2005).
2. Renhowe, P.A., Pecchi, S., Shafer, C.M., *et al.* Design, structure-activity relationships and in vivo characterization of 4-amino-3-benzimidazol-2-ylhydroquinolin-2-ones: A novel class of receptor tyrosine kinase inhibitors. *J. Med. Chem.* **52**(2), 278-292 (2009).

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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