

PRODUCT INFORMATION



BIBF 1120-¹³C-d₃

Item No. 25312

Formal Name: methyl (Z)-3-(((4-(N-methyl-2-(4-(methyl-¹³C-d₃)piperazin-1-yl)acetamido)phenyl)amino)(phenyl)methylene)-2-oxindoline-6-carboxylate

Synonym: Nintedanib-¹³C-d₃

MF: C₃₀[¹³C]H₃₀D₃N₅O₄

FW: 543.7

Chemical Purity: ≥98% (BIBF 1120)

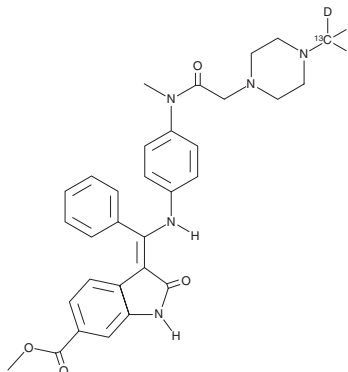
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀

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

BIBF 1120-¹³C-d₃ is intended for use as an internal standard for the quantification of BIBF 1120 (Item Nos. 11022 | 31082) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

BIBF 1120-¹³C-d₃ is supplied as a solid. A stock solution may be made by dissolving the BIBF 1120-¹³C-d₃ in the solvent of choice, which should be purged with an inert gas. BIBF 1120-¹³C-d₃ is soluble in the organic solvent DMSO at a concentration of approximately 25 mg/ml.

Description

BIBF 1120-¹³C-d₃ is intended for use as an internal standard for the quantification of BIBF 1120 (Item Nos. 11022 | 31082) by GC- or LC-MS. BIBF 1120 is an inhibitor of the receptor tyrosine kinases VEGFR, FGFR, and PDGFR (IC₅₀s = 13-34, 37-610, 59, and 65 nM for VEGFR1-3, FGFR1-4, PDGFRα, and PDGFRβ, respectively).¹ It is selective for VEGFR, FGFR, and PDGFR over a panel of 33 kinases but does inhibit FLT3, LCK, LYN, and Src (IC₅₀s = 16-156 nM). BIBF 1120 inhibits growth factor-dependent proliferation of human umbilical vascular endothelial cells (HUVECs), human microvascular skin endothelial cells (HSMECs), human umbilical artery smooth muscle cells (HUASMCs), and bovine retinal pericytes (BRPs; EC₅₀s = 7-290 nM). *In vivo*, BIBF 1120 (100 mg/kg) reduces tumor microvessel density and the number of PDGFRβ-expressing perivascular cells in a FaDu head and neck small cell carcinoma mouse xenograft model. It also inhibits tumor growth in a Caki-1 renal cancer mouse xenograft model. Formulations containing BIBF 1120 have been used in the treatment of idiopathic pulmonary fibrosis and non-small cell lung cancer (NSCLC).

Reference

1. Hilberg, F., Roth, G.J., Krssak, M., *et al.* BIBF 1120: Triple angiokinase inhibitor with sustained receptor blockade and good antitumor efficacy. *Cancer Res.* **68**(12), 4774-4782 (2008).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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