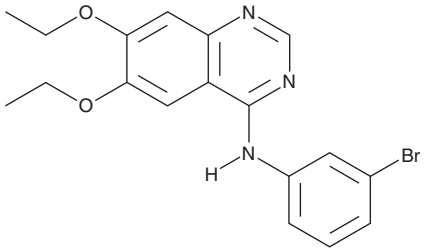
PRODUCT INFORMATION

Compound 56

Item No. 17254

CAS Registry No.:	171745-13-4
Formal Name:	N-(3-bromophenyl)-6,7-diethoxy-4-quinazolinamine
MF:	$C_{18}H_{18}BrN_3O_2$
FW:	388.3
Purity:	≥95%
UV/Vis.:	λ_{max}: 208, 230, 252, 333 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

Compound 56 is supplied as a crystalline solid. A stock solution may be made by dissolving the compound 56 in the solvent of choice, which should be purged with an inert gas. Compound 56 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of compound 56 in these solvents is approximately 2 mg/ml.

Compound 56 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, compound 56 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Compound 56 has a solubility of approximately 0.25 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

Compound 56 is a highly potent inhibitor of the tyrosine kinase activity of the epidermal growth factor receptor (EGFR; IC_{50} = 0.006 nM).[1] It has been used to inhibit EGFR activity in pancreatic cancer cell lines and to induce the differentiation of rat mesenchymal stem cells.[2,3]

References

1. Bridges, A.J., Zhou, H., Cody, D.R., *et al.* Tyrosine kinase inhibitors. 8. An unusually steep structure-activity relationship for analogues of 4-(3-bromoanilino)-6,7-dimethoxyquinazoline (PD 153035), a potent inhibitor of the epidermal growth factor receptor. *J. Med. Chem.* **39(1)**, 267-276 (1996).
2. Chandana, S.R., Leece, C.M., Gallo, K.A., *et al.* Inhibition of MLK3 decreases proliferation and increases antiproliferative activity of epidermal growth factor receptor (EGFR) inhibitor in pancreatic cancer cell lines. *Cancer Growth Metastasis* **3**, 1-9 (2010).
3. Hwang, K.C., Kim, J.Y., Chang, W., *et al.* Chemicals that modulate stem cell differentiation. *Proc. Natl. Acad. Sci. USA* **105(21)**, 7467-7471 (2008).

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