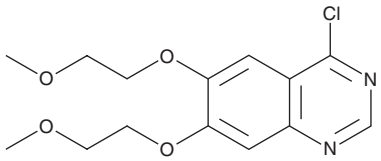
PRODUCT INFORMATION

4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline

Item No. 30487

CAS Registry No.:	183322-18-1
MF:	$C_{14}H_{17}ClN_2O_4$
FW:	312.8
Purity:	≥95%
UV/Vis.:	λ_{max}: 222, 244 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

4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-chloro-6,7-*bis*(2-methoxyethoxy)quinazoline in the solvent of choice, which should be purged with an inert gas. 4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 4-chloro-6,7-*bis*(2-methoxyethoxy) quinazoline in these solvents is 1, 10, and 30 mg/ml, respectively.

4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-chloro-6,7-*bis*(2-methoxyethoxy)quinazoline should first be dissolved in DMF and then diluted with the aqueous buffer of choice. 4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

4-Chloro-6,7-*bis*(2-methoxyethoxy)quinazoline is a building block and synthetic intermediate.[1-5] It has been used as a precursor in the synthesis of receptor tyrosine kinase (RTK) inhibitors, dual RTK and histone deacetylase (HDAC) inhibitors, and anticancer compounds.[1-3] It is also a synthetic intermediate in the synthesis of EGFR inhibitors, including erlotinib (Item No. 10483), with antiproliferative activity.[4,5]

References

1. Pandey, A., Volkots, D.L., Seroogy, J.M., *et al.* Identification of orally active, potent, and selective 4-piperazinylquinazolines as antagonists of the platelet-derived growth factor receptor tyrosine kinase family. *J. Med. Chem.* **45(17)**, 3772-3793 (2002).
2. Li, W.W., Wang, X.Y., Zheng, R.L., *et al.* Discovery of the novel potent and selective FLT3 inhibitor 1-{5-[7-(3-morpholinopropoxy)quinazolin-4-ylthio]-[1,3,4]thiadiazol-2-yl}-3-*p*-tolylurea and its anti-acute myeloid leukemia (AML) activities *in vitro* and *in vivo*. *J. Med. Chem.* **55(8)**, 3852-3866 (2012).
3. Zhang, X., Su, M., Chen, Y., *et al.* The design and synthesis of a new class of RTK/HDAC dual-targeted inhibitors. *Molecules* **18(6)**, 6491-6503 (2013).
4. Liu, Z., Wang, L., Feng, M., *et al.* New acrylamide-substituted quinazoline derivatives with enhanced potency for the treatment of EGFR T790M-mutant non-small-cell lung cancers. *Bioorg. Chem.* **77**, 593-599 (2018).
5. Knesl, P., Röseling, D., and Jordis, U. Improved synthesis of substituted 6,7-dihydroxy-4-quinazolineamines: Tandutinib, erlotinib and gefitinib. *Molecules* **11(4)**, 286-297 (2006).

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