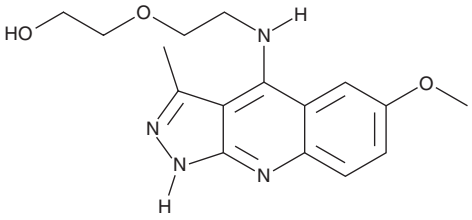
PRODUCT INFORMATION

SCH 51344

Item No. 17804

CAS Registry No.:	171927-40-5
Formal Name:	2-[2-[(6-methoxy-3-methyl-1H-pyrazolo[3,4-b] quinolin-4-yl)amino]ethoxy]-ethanol
Synonym:	Ras/Rac Transformation Blocker
MF:	$C_{16}H_{20}N_4O_3$
FW:	316.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 245, 305, 385, 405 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

SCH 51344 is supplied as a crystalline solid. A stock solution may be made by dissolving the SCH 51344 in the solvent of choice. SCH 51344 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of SCH 51344 in these solvents is approximately 0.25, 30, and 20 mg/ml, respectively.

SCH 51344 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, SCH 51344 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. SCH 51344 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

SCH 51344 is a pyrazolo-quinoline derivative that inhibits Ras-induced malignant transformation and prevents anchorage-independent growth of oncogene transformed fibroblasts.[1] At 5-25 µM, it has been shown to dose-dependently block Ras/Rac-induced membrane ruffling in REF-52 fibroblasts with little effect on Ras-induced ERK and JNK kinase activity.[2] SCH 51344 is also reported to be a potent inhibitor of human mutT homolog MTH1, a nucleotide pool sanitizing enzyme that cleaves oxidized nucleotides (K_d = 49 nM).[3]

References

1. Kumar, C.C., Prorock-Rogers, C., Kelly, J., *et al.* SCH 51344 inhibits ras transformation by a novel mechanism. *Cancer Res.* **55(21)**, 5106-5117 (1995).
2. Walsh, A.B., Dhanasekaran, M., Bar-Sagi, D., *et al.* SCH 51344-induced reversal of RAS-transformation is accompanied by the specific inhibition of the RAS and RAC-dependent cell morphology pathway. *Oncogene* **15(21)**, 2553-2560 (1997).
3. Huber, K.V.M., Salah, E., Branka, R., *et al.* Stereospecific targeting of MTH1 by (S)-crizotinib as an anticancer strategy. *Nature* **508(7495)**, 222-227 (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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