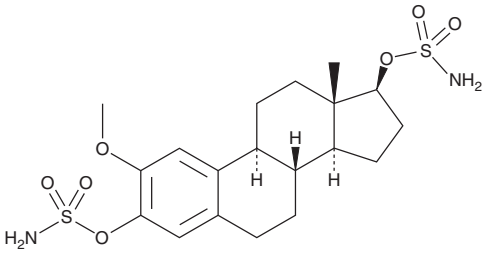
PRODUCT INFORMATION

STX140

Item No. 27863

CAS Registry No.:	401600-86-0
Formal Name:	2-methoxy-estra-1,3,5(10)-triene-3,17β-diol, disulfamate
Synonym:	2-Methoxyestradiol-*bis*-sulphamate
MF:	$C_{19}H_{28}N_2O_7S_2$
FW:	460.6
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

STX140 is supplied as a crystalline solid. A stock solution may be made by dissolving the STX140 in the solvent of choice, which should be purged with an inert gas. STX140 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of STX140 in these solvents is approximately 14, 25, and 30 mg/ml, respectively.

STX140 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, STX140 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. STX140 has a solubility of approximately 0.1 mg/ml in a 1:7 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

STX140 is an estrogen sulfamate with anticancer activities.[1] It inhibits steroid sulfatase with IC_{50} values of 39 and 0.5 nM in placental microsomes and MCF-7 cancer cells, respectively. STX140 also binds to carbonic anhydrase IX and II (K_is = 70 and 270 nM, respectively).[2] It inhibits bovine brain tubulin assembly in a cell-free assay (IC_{50} = 2.2 µM) and tubule formation in human umbilical vein epithelial cells (HUVECs) when used at concentrations of 50 and 100 nM.[3,4] STX140 inhibits proliferation of LNCaP, PC3, and MDA-MB-231 cancer cells, as well as wild-type A2780 cancer cells and adriamycin- and cisplatin-resistant A2780 cancer cells (IC_{50}s = 530, 400, 618, 330, 870, and 380 nM, respectively).[5,6] It reduces angiogenesis in a Matrigel™ plug assay in mice and tumor growth in MCF-7 and MDA-MB-231 mouse xenograft models when used at a dose of 20 mg/kg.[6,7]

References

1. Raobaikady, B., Purohit, A., Chander, S.K., *et al. J. Steroid Biochem. Mol. Biol.* **84(2-3)**, 351-358 (2003).
2. Andring, J.T., Dohle, W., Tu, C., *et al. J. Med. Chem.* **62(4)**, 2202-2212 (2019).
3. Jourdan, F., Leese, M.P., Dohle, W., *et al. J. Med. Chem.* **53(7)**, 2942-2951 (2010).
4. Newman, S.P., Foster, P.A., Ho, Y.T., *et al. Br. J. Cancer* **97(12)**, 1673-1682 (2007).
5. Day, J.M., Newman, S.P., Comninos, A., *et al. J. Steroid Biochem. Mol. Biol.* **84(2-3)**, 317-325 (2003).
6. Foster, P.A., Ho, Y.T., Newman, S.P., *et al. Breast Cancer Res. Treat.* **111(2)**, 251-260 (2008).
7. Chander, S.K., Foster, P.A., Leese, M.P., *et al. Br. J. Cancer* **96(9)**, 1368-1376 (2007).

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