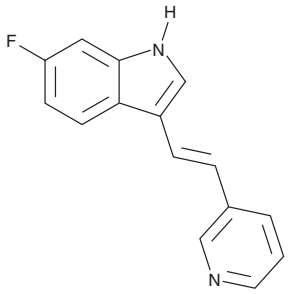
PRODUCT INFORMATION

680C91

Item No. 34823

CAS Registry No.:	163239-22-3
Formal Name:	6-fluoro-3-[(1E)-2-(3-pyridinyl)ethenyl]-1H-indole
MF:	$C_{15}H_{11}FN_2$
FW:	238.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 227, 340 nm
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

680C91 is supplied as a solid. A stock solution may be made by dissolving the 680C91 in the solvent of choice, which should be purged with an inert gas. 680C91 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 680C91 in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

680C91 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 680C91 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 680C91 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

680C91 is an inhibitor of tryptophan 2,3-dioxygenase (TDO; IC_{50}s = 1.46 and 0.28 µM for the mouse and human enzymes, respectively).[1] It is selective for TDO over indoleamine 2,3-dioxygenase (IDO; IC_{50} = >80 µM for the mouse enzyme). 680C91 (40 µM) inhibits the migration of SK-MEL-28 melanoma cells induced by dexamethasone (Item No. 11015).[2] It increases brain levels of tryptophan, serotonin (5-HT), and 5-hydroxy indole-3-acetic acid (5-HIAA) in rats in a dose-dependent manner.[3]

References

1. Pilotte, L., Larrieu, P., Stroobant, V., *et al.* Reversal of tumoral immune resistance by inhibition of tryptophan 2,3-dioxygenase. *Proc. Natl. Acad. Sci. USA* **109(7)**, 2497-2502 (2012).
2. Cecchi, M., Paccosi, S., Silvano, A., *et al.* Dexamethasone induces the expression and function of tryptophan-2-3-dioxygenase in SK-MEL-28 melanoma cells. *Pharmaceuticals (Basel)* **14(3)**, 211 (2021).
3. Salter, M., Hazelwood, R., Pogson, C.I., *et al.* The effects of a novel and selective inhibitor of tryptophan 2,3-dioxygenase on tryptophan and serotonin metabolism in the rat. *Biochem. Pharmacol.* **49(10)**, 1435-1442 (1995).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM