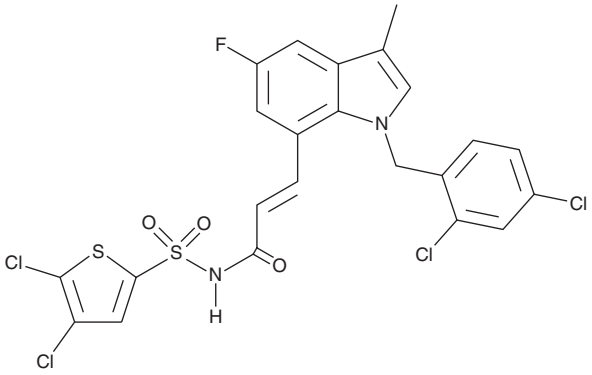
PRODUCT INFORMATION

DG-041

Item No. 13234



CAS Registry No.:	861238-35-9
Formal Name:	(2E)-3-[1-[(2,4-dichlorophenyl) methyl]-5-fluoro-3-methyl-1H-indol-7-yl]-N-[(4,5-dichloro-2-thienyl)sulfonyl]-2-propenamide
MF:	$C_{23}H_{15}Cl_4FN_2O_3S_2$
FW:	592.3
Purity:	≥98%
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

DG-041 is supplied as a solid. A stock solution may be made by dissolving the DG-041 in the solvent of choice, which should be purged with an inert gas. DG-041 is soluble (≥10 mg/ml) in DMSO.

Description

DG-041 is an antagonist of the prostaglandin E_2 (PGE_2; Item No. 14010) receptor subtype EP_3 (IC_{50} = 8.1 nM in a calcium mobilization assay).[1] It is selective for EP_3 over DP_1, EP_1, and TP receptors (IC_{50}s = 131, 486, and 742 nM, respectively, in calcium mobilization assays) as well as EP_2, EP_4, IP, FP, and DP_2/$CRTH_2$ receptors (IC_{50}s = >10,000 nM for all in calcium mobilization assays). DG-041 (1 µM) inhibits collagen- and PGE_2-induced platelet aggregation in isolated rat platelets. It inhibits P-selectin expression induced by the TP receptor agonist U-46619 (Item No. 16450) in isolated and washed human platelets when used at a concentration of 3 µM.[2] DG-041 (10 or 100 mg/kg) inhibits collagen- and PGE_2-induced platelet aggregation in rat platelet-rich plasma *ex vivo* without increasing bleeding time in the same rats.[1]

References

1. Singh, J., Zeller, W., Zhou, N., *et al.* Antagonists of the EP3 receptor for prostaglandin E2 are novel antiplatelet agents that do not prolong bleeding. *ACS Chem. Biol.* **4(2),** 115-126 (2009).
2. Heptinstall, S., Espinosa, D.I., Manolopoulos, P., *et al.* DG-041 inhibits the EP3 prostanoid receptor–a new target for inhibition of platelet function in atherothrombotic disease. *Platelets* **19(8),** 605-613 (2008).

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