

# PRODUCT INFORMATION

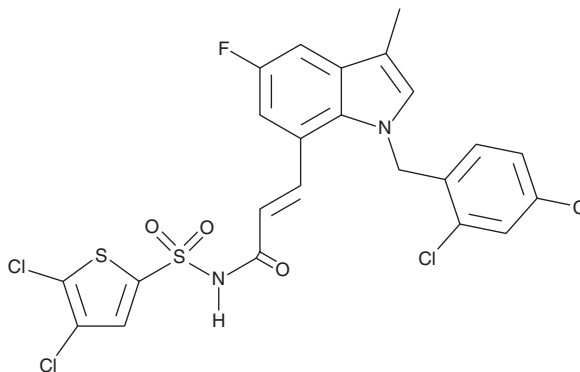


## DG-041

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<sub>23</sub>H<sub>15</sub>Cl<sub>4</sub>FN<sub>2</sub>O<sub>3</sub>S<sub>2</sub>  
**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<sub>2</sub> (PGE<sub>2</sub>; Item No. 14010) receptor subtype EP<sub>3</sub> (IC<sub>50</sub> = 8.1 nM in a calcium mobilization assay).<sup>1</sup> It is selective for EP<sub>3</sub> over DP<sub>1</sub>, EP<sub>1</sub>, and TP receptors (IC<sub>50</sub>s = 131, 486, and 742 nM, respectively, in calcium mobilization assays) as well as EP<sub>2</sub>, EP<sub>4</sub>, IP, FP, and DP<sub>2</sub>/CRTH<sub>2</sub> receptors (IC<sub>50</sub>s = >10,000 nM for all in calcium mobilization assays). DG-041 (1 μM) inhibits collagen- and PGE<sub>2</sub>-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.<sup>2</sup> DG-041 (10 or 100 mg/kg) inhibits collagen- and PGE<sub>2</sub>-induced platelet aggregation in rat platelet-rich plasma *ex vivo* without increasing bleeding time in the same rats.<sup>1</sup>

### References

1. Singh, J., Zeller, W., Zhou, N., *et al.* Antagonists of the EP<sub>3</sub> receptor for prostaglandin E<sub>2</sub> 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 EP<sub>3</sub> prostanoid receptor—a new target for inhibition of platelet function in atherothrombotic disease. *Platelets* **19**(8), 605-613 (2008).

#### 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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