

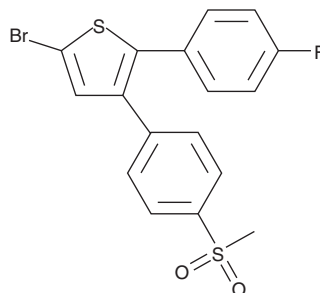
# PRODUCT INFORMATION



## DuP-697

Item No. 70645

**CAS Registry No.:** 88149-94-4  
**Formal Name:** 5-bromo-2-(4-fluorophenyl)-3-(4-(methylsulfonyl)phenyl)-thiophene  
**MF:** C<sub>17</sub>H<sub>12</sub>BrFO<sub>2</sub>S<sub>2</sub>  
**FW:** 411.3  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 254, 300 nm



### Laboratory Procedures

For long term storage, we suggest that DuP-697 be stored as supplied at -20°C. It should be stable for at least one year.

DuP-697 is supplied as a crystalline solid. A stock solution may be made by dissolving the DuP-697 in an organic solvent purged with an inert gas. DuP-697 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of DuP-697 in these solvents is approximately 7, 15, and 54 mg/ml, respectively.

DuP-697 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DuP-697 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. DuP-697 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

DuP-697 is a member of the diaryl heterocycle group of selective COX-2 inhibitors which includes MK-966 (rofecoxib), SC-58125, and celecoxib. DuP-697 is a potent and time-dependent inhibitor of COX-2.<sup>1</sup> When tested on isolated recombinant enzymes, DuP-697 is at least 50 times more potent in the inhibition of COX-2 than COX-1.<sup>2</sup> The IC<sub>50</sub> values for human recombinant COX-2 are 80 and 40 nM at 5 and 10 minutes, respectively.<sup>3</sup> The IC<sub>50</sub> for the inhibition of human recombinant COX-1 after the same time intervals is 9 μM.<sup>3</sup> DuP-697 also attenuates the COX-1 inhibitory activity of non-selective COX inhibitors such as indomethacin.<sup>4</sup>

### References

1. Kargman, S., Wong, E., Greig, G.M., *et al.* Mechanism of selective inhibition of human prostaglandin G/H synthase-1 and -2 in intact cells. *Biochem. Pharmacol.* **52**, 1113-1125 (1996).
2. Seibert, K., Masferrer, J., Needleman, P., *et al.* Pharmacological manipulation of cyclooxygenase-2 in the inflamed hydronephrotic kidney. *Br. J. Pharmacol.* **117**, 1016-1020 (1996).
3. Johnson, J.L. [Unpublished] (2000).
4. Rosenstock, M., Danon, A., and Rimon, G. PGHS-2 inhibitors, NS-398 and DuP-697, attenuate the inhibition of PGHS-1 by aspirin and indomethacin without altering its activity. *Biochim. Biophys. Acta* **1440**, 127-137 (1999).

#### 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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#### 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