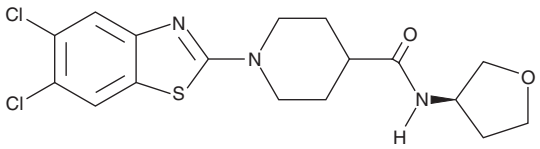
PRODUCT INFORMATION

UT-11

Item No. 38580

Formal Name:	(R)-1-(5,6-dichlorobenzo[d]thiazol-2-yl)-N-(tetrahydrofuran-3-yl) piperidine-4-carboxamide
MF:	$C_{17}H_{19}Cl_2N_3O_2S$
FW:	400.3
Purity:	≥98%
UV/Vis.:	λ_{max}: 237, 284 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥3 years



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

Laboratory Procedures

UT-11 is supplied as a solid. A stock solution may be made by dissolving the UT-11 in the solvent of choice, which should be purged with an inert gas. UT-11 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of UT-11 in ethanol is approximately 3 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of UT-11 can be prepared by directly dissolving the solid in aqueous buffers. UT-11 is slightly soluble in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

UT-11 is an inhibitor of microsomal prostaglandin E synthase-1 (mPGES-1).[1] It inhibits PGE_2 production in both SK-N-AS human neuroblastoma and BV-2 mouse microglial cells (IC_{50}s = 0.1 and 2 µM, respectively). UT-11 (10 mg/kg, i.p.) reduces LPS-induced increases in a variety of cytokines, including chemokine (C-C motif) ligand 2 (CCL2), IL-6, and TNF-α, in the mouse hippocampus, but not kidney, without affecting the mRNA expression of *Cox2*.

Reference

1. Sluter, M.N., Bhuniya, R., Yuan, X., *et al.* Novel, brain-permeable, cross-species benzothiazole inhibitors of microsomal prostaglandin E synthase-1 (mPGES-1) dampen neuroinflammation *in vitro* and *in vivo*. *ACS Pharmacol. Transl. Sci.* **6(4)**, 587-599 (2023).

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