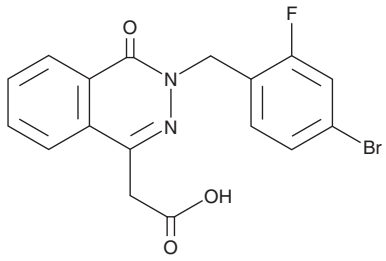
PRODUCT INFORMATION

Statil

Item No. 19189

CAS Registry No.:	72702-95-5
Formal Name:	3-[(4-bromo-2-fluorophenyl) methyl]-3,4-dihydro-4-oxo-1-phthalazineacetic acid
Synonyms:	ICI 128436, MK-538, Ponalrestat
MF:	$C_{17}H_{12}BrFN_2O_3$
FW:	391.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 212, 256, 288 nm
Supplied as:	A crystalline 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

Statil is supplied as a crystalline solid. A stock solution may be made by dissolving the statil in the solvent of choice, which should be purged with an inert gas. Statil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of statil in these solvents is approximately 2 mg/ml.

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 statil can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of statil in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Statil is an aldose reductase inhibitor that blocks the conversion of glucose to sorbitol. It demonstrates selectivity for aldose reductase 2 over aldose reductase 1 with K_i values of 7.7 nM and 60 µM, respectively.[1] Statil has been shown to prevent diabetes-induced alterations of the cardiovascular system in 14-day streptozotocin-diabetic rats.[2] Aldose reductase inhibition by statil has also been used to impair the synthesis of prostaglandin $F_{2\alpha}$ by human cultured preadipocytes.[3]

References

1. Ward, W.H.J., Sennitt, C.M., Ross, H., *et al.* Ponalrestat: A potent and specific inhibitor of aldose reductase. *Biochem. Pharmacol.* **39(2)**, 337-346 (1990).
2. Otter, D.J. and Chess-Williams, R. The effects of aldose reductase inhibition with ponalrestat on changes in vascular function in streptozotocin diabetic rats. *Br. J. Pharmacol.* **113(2)**, 576-580 (1994).
3. Michaud, A., Lacroix-Pépin, N., Pelletier, M., *et al.* Prostaglandin (PG) F2 alpha synthesis in human subcutaneous and omental adipose tissue: Modulation by inflammatory cytokines and role of the human aldose reductase AKR1B. *PLoS One* **9(3)**, (2014).

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