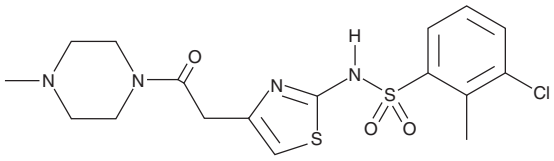
PRODUCT INFORMATION

BVT 2733

Item No. 22203

CAS Registry No.:	376640-41-4
Formal Name:	3-chloro-2-methyl-N-[4-[2-(4-methyl-1-piperazinyl)-2-oxoethyl]-2-thiazolyl]-benzenesulfonamide
MF:	$C_{17}H_{21}ClN_4O_3S_2$
FW:	429.0
Purity:	≥98%
UV/Vis.:	λ_{max}: 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

BVT 2733 is supplied as a crystalline solid. A stock solution may be made by dissolving the BVT 2733 in the solvent of choice. BVT 2733 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of BVT 2733 in these solvents is approximately 1 mg/ml.

BVT 2733 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BVT 2733 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BVT 2733 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BVT 2733 is an inhibitor of 11β-hydroxysteroid dehydrogenase type 1 (11β-HSD1; Item No. 10007815).[1] In a mouse model of hyperglycemia and hyperinsulinemia, BVT 2733 (100 mg/kg) inhibits 11β-HSD1 activity in isolated liver and decreases blood glucose and insulin concentrations. It decreases the expression of monocyte chemoattractant protein 1 (MCP-1) and TNF-α in adipose tissue, but not plasma, of mice with high-fat diet-induced obesity and normalizes the expression of adipokines in adipose tissue.[2] It also reduces body weight and improves glucose tolerance and insulin sensitivity in high-fat diet-induced obese mice. BVT 2733 decreases TNF-α, IL-1β, IL-6, and IL-17 protein levels in serum and reduces severity of collagen-induced arthritis in mice.[3]

References

1. Alberts, P., Engblom, L., Edling, N., *et al.* Selective inhibition of 11β-hydroxysteroid dehydrogenase type 1 decreases blood glucose concentrations in hyperglycaemic mice. *Diabetologia* **45(11)**, 1528-1532 (2002).
2. Wang, L., Liu, J., Zhang, A., *et al.* BVT.2733, a selective 11β-hydroxysteroid dehydrogenase type 1 inhibitor, attenuates obesity and inflammation in diet-induced obese mice. *PLoS One* **7(7)**, e40056 (2012).
3. Zhang, L., Dong, Y., Zou, F., *et al.* 11β-Hydroxysteroid dehydrogenase 1 inhibition attenuates collagen-induced arthritis. *Int. Immunopharmacol.* **17(3)**, 489-494 (2013).

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