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Produktinformation

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- Diagnostik & molekulare Diagnostik
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siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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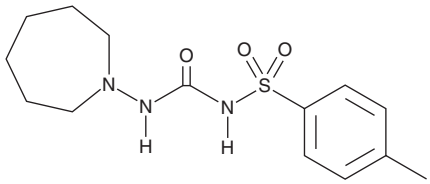
PRODUCT INFORMATION

Tolazamide

Item No. 23545

CAS Registry No.:	1156-19-0
Formal Name:	N-[[(hexahydro-1H-azepin-1-yl) amino]carbonyl]-4-methyl-benzenesulfonamide
Synonym:	NSC 70762
MF:	$C_{14}H_{21}N_3O_3S$
FW:	311.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 229 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Tolazamide is supplied as a crystalline solid. A stock solution may be made by dissolving the tolazamide in the solvent of choice. Tolazamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of tolazamide is approximately 0.25 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

Description

Tolazamide is a first generation sulfonylurea that inhibits sulfonylurea receptor 1 (SUR1) linked to the inwardly rectifying potassium channel ($K_{IR}6.2$; IC_{50} = 4.2 µM in HEK293 cells transfected with the human receptor).[1] It has no effect on glucose uptake in L6 rat skeletal muscle cells when used at a concentration of 0.6 mg/mL but enhances glucose uptake two-fold when used in combination with insulin.[2] *In vivo*, tolazamide (128 mg/kg) reduces glomerulosclerosis and albumin excretion in a rat model of insulin-dependent diabetes induced by streptozotocin (Item No. 13104).[3] Formulations containing tolazamide have been used in the treatment of type 2 diabetes.

References

1. Gopalakrishnan, M., Molinari, E.J., Char-Change, S., *et al.* Pharmacology of human sulphonylurea receptor SUR1 and inward rectifier K^+ channel Kir6.2 combination expressed in HEK-293 cells. *Br. J. Pharmacol.* **129(7)**, 1323-1332 (2000).
2. Wang, P.H., Moeller, D., Flier, J.S., *et al.* Coordinate regulation of glucose transporter function, number, and gene expression by insulin and sulfonylureas in L6 rat skeletal muscle cells. *J. Clin. Invest.* **84(1)**, 62-67 (1989).
3. Biederman, J.I., Vera, E., Rankhaniya, R., *et al.* Effects of sulfonylureas, α-endosulfine counterparts, on glomerulosclerosis in type 1 and type 2 models of diabetes. *Kidney Int.* **67(2)**, 554-565 (2005).

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