

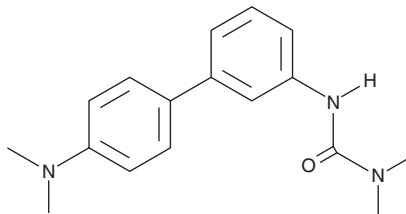
PRODUCT INFORMATION



Atglistatin

Item No. 15284

CAS Registry No.: 1469924-27-3
Formal Name: N'-[4'-(dimethylamino)[1,1'-biphenyl]-3-yl]-N,N-dimethyl-urea
MF: C₁₇H₂₁N₃O
FW: 283.4
Purity: ≥95%
UV/Vis.: λ_{max}: 205, 248, 299 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

Atglistatin is supplied as a crystalline solid. A stock solution may be made by dissolving the atglistatin in the solvent of choice, which should be purged with an inert gas. Atglistatin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of atglistatin in these solvents is approximately 3, 25, and 5 mg/ml, respectively.

Atglistatin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, atglistatin should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Atglistatin 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

Adipose triglyceride lipase (ATGL or PNPLA2) catalyzes the initial step in triglyceride hydrolysis in adipocyte and non-adipocyte lipid droplets, generating diacylglycerol.^{1,2} Atglistatin is a potent, selective, and competitive inhibitor of ATGL (IC₅₀ = 0.7 μM).³ It does not inhibit hormone-sensitive lipase, monoglyceride lipase, pancreatic lipase, lipoprotein lipase, or other lysophospholipases.³ Atglistatin blocks lipolysis by ATGL *in vitro*, in white adipose tissue organ cultures, and *in vivo*.³ It does not affect lipolysis in ATGL knockout mice.³

References

1. Lass, A., Zimmermann, R., Oberer, M., *et al.* Lipolysis - a highly regulated multi-enzyme complex mediates the catabolism of cellular fat stores. *Prog. Lipid Res.* **50**, 14-27 (2011).
2. Watt, M.J. and Spriet, L.L. Triacylglycerol lipases and metabolic control: Implications for health and disease. *Am. J. Physiol. Endocrinol. Metab.* **299**, E162-E168 (2010).
3. Mayer, N., Schweiger, M., Romauch, M., *et al.* Development of small-molecule inhibitors targeting adipose triglyceride lipase. *Nat. Chem. Biol.* **9(12)**, 785-787 (2013).

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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