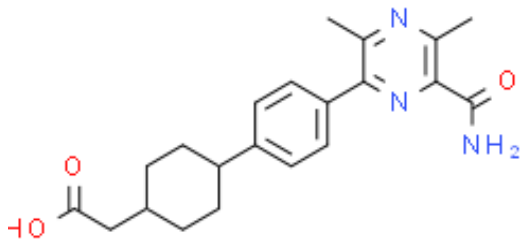
Product Data Sheet

Cas No.:	1166827-44-6	Cat. No:	PC12446
Product Name:	AZD7687		
Product synonym:	[反式-4-[4-(6-氨基甲酰基-3,5-二甲基吡嗪-2-基)苯基]环己基]乙酸		
Chemical name:	AZD7687		
MF:	C21H25N3O3	FW:	367.44150519371
Purity:	≥98%	Batch No.:	-
Storage:			
Structural formula:			
λmax:	-	Formulation:	-
Solubility :			
SMILES :	CC1=C(C(N)=O)N=C(C2=CC=C([C@H]3CC[C@H](CC(O)=O)CC3)C=C2)C(C)=N1		
InChI Code:	-		
InChI Key:			
WARNING This product is not for human or veterinary use.			

Product Description

强效的选择性DGAT抑制剂,AZD7687是hDGAT1抑制剂，IC50为80 nM。

生物活性	AZD7687 is a potent, selective, reversible and orally active **diacylglycerol acyltransferase 1 (DGAT1)** inhibitor with an **IC_{50}** of 80 nM for **human DGAT1**. AZD7687 can be used for type 2 diabetes mellitus and obesity research.
体外研究(In Vitro)	In an 体外研究 recombinant mouse, dog, and human DGAT1 enzyme assay, AZD7687 has an IC50 of approximately 100 nM, 60 nM, and 80 nM, respectively. AZD7687 (compound 30) shows inhibition of acyl-CoA:cholesterol acetyltransferase (79% at 10 μM), fatty acid amide hydrolase (IC_{50} = 3.7 μM), muscarinic M2 receptor (IC_{50} = 80.5 μM), and phosphodiesterase PDE10A1 (IC_{50} = 5.5 μM). No activity against human DGAT2 is detected. **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**

体内研究(In Vivo)	Prolonged pharmacological inhibition of DGAT1 with AZD7687 in mice results in the same skin phenotype, including sebaceous gland atrophy and alopecia, as seen in the skin of DGAT1 mice. AZD7687-mediated effects on the skin were dose- and time-dependent and reversible. **Medlife has not independently confirmed the accuracy of these methods. They are for reference only.**
包装储存	Powder **-20°C** 3 years **4°C** 2 years In solvent **-80°C** 6 months **-20°C** 1 month

溶解度数据

体外研究:

DMSO : ≥ 50 mg/mL (136.08 mM)

* "≥" means soluble, but saturation unknown.

配制储备溶液	质量 溶剂体积 浓度	1 mg	5 mg	10 mg
	1 mM	2.7215 mL	13.6077 mL	27.2153 mL
	5 mM	0.5443 mL	2.7215 mL	5.4431 mL
	10 mM	0.2722 mL	1.3608 mL	2.7215 mL

* 产品不同，其溶解度不同。建议根据产品选择合适的溶剂配制储备溶液；配成溶液后，**建议分装保存，避免反复冻融造成的产品失效**。

储备液的保存方式和期限： -80°C, 6 months; -20°C, 1 month。-80°C 储存时，建议在 6 个月内使用，-20°C 储存时，建议在 1 个月内使用。

体内研究:

建议根据您的实验动物和给药方式选择适当的溶解方案。以下溶解方案都建议先按照 **体外研究** 方式配制澄清的储备液，再依次添加助溶剂：

——为保证实验结果的可靠性，**澄清的储备液可以根据储存条件，适当保存**；体内实验的工作液，**建议您现用现配，当天使用**； 以下溶剂前显示的百分比是指**该溶剂在您配制终溶液中的体积占比**；如在配制过程中出现沉淀、析出现象，可以通过**加热和/或超声的方式助溶**

1. 建议依照次序添加每种溶剂： 10% DMSO 40% PEG300 5% Tween-80 45% saline

   Solubility: 2.5 mg/mL (6.80 mM); Suspended solution; Need ultrasonic and warming

   此方案可获得 2.5 mg/mL (6.80 mM) 的均匀悬浊液，悬浊液可用于口服和腹腔注射。

   以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 400 μL PEG300 中，混合均匀；向上述体系中加入50 μL Tween-80，混合均匀；然后继续加入 450 μL生理盐水定容至 1 mL。

   将 0.9 g 氯化钠，完全溶解于 100 mL ddH?O 中，得到澄清透明的生理盐水溶液

2. 建议依照次序添加每种溶剂： 10% DMSO 90% (20% SBE-β-CD in saline)

   Solubility: ≥ 2.5 mg/mL (6.80 mM); Clear solution

   此方案可获得 ≥ 2.5 mg/mL (6.80 mM，饱和度未知) 的澄清溶液。

   以 1 mL 工作液为例，取 100 μL 25.0 mg/mL 的澄清 DMSO 储备液加到 900 μL 20% 的 SBE-β-CD 生理盐水水溶液中，混合均匀。

   将 2 g 磺丁基醚 β-环糊精加入 5 mL 生理盐水中，再用生理盐水定容至 10 mL，完全溶解，澄清透明

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