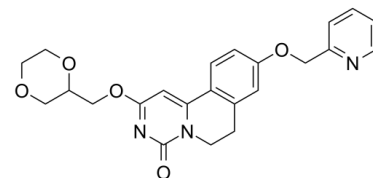


## Data Sheet

<b>Product Name:</b>	GPR84 antagonist 8
<b>Cat. No.:</b>	CS-0046493
<b>CAS No.:</b>	1445846-30-9
<b>Molecular Formula:</b>	C23H23N3O5
<b>Molecular Weight:</b>	421.45
<b>Target:</b>	GPR84
<b>Pathway:</b>	GPCR/G Protein
<b>Solubility:</b>	DMSO : 5 mg/mL (11.86 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

GPR84 antagonist 8 is a selective **GPR84** antagonist. IC50 & Target: GPR84<sup>[1]</sup> **In Vitro:** GPR84 is a member of the metabolic G protein-coupled receptor family, and its expression has been described predominantly in immune cells. To test the hypothesis that blocking the activation of GPR84 can be a potential anti-inflammatory strategy in different inflammatory diseases, GPR84 antagonist 8 is used. The potency and specificity of GPR84 antagonist 8 is assessed using GPR84-CHO cells in the cAMP assay. GPR84 antagonist 8 effectively inhibits the action of 6-OAU in decreasing cAMP production in GPR84-CHO cells. To test GPR84 antagonist 8's inhibition of the pro-inflammatory effects of GPR84 activation in macrophages, LPS pre-treated BMDMs are incubated with 10  $\mu$ M GPR84 antagonist 8 for 30 min before adding 1  $\mu$ M 6-OAU. Protein analysis by Western Blot shows that the GPR84 antagonist 8 partially blocks the phosphorylation of AKT and ERK induced by 6-OAU<sup>[1]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** <sup>[1]</sup> **Bone marrow-derived macrophages** treated with either vehicle (0.3% DMSO) or 1  $\mu$ M 6-OAU for 1 h are incubated with unopsonised pHrodo E. coli bioparticles at 0.1 mg/mL in a 96-well flat clear bottom plate. For the inhibition studies with GPR84 antagonist 8, cells are pretreated with **10  $\mu$ M GPR84 antagonist 8** for 30 min before addition of either vehicle or 6-OAU. The plate is then placed into the IncuCyte Zoom platform which is housed inside a humidified incubator at 37°C, 5% CO<sub>2</sub>. Two to four images per well from three technical replicates are taken every 15 min for 4 h<sup>[1]</sup>.

### References:

[1]. Recio C, et al. Activation of the Immune-Metabolic Receptor GPR84 Enhances Inflammation and Phagocytosis in Macrophages. Front Immunol. 2018 Jun 20;9:1419.

### CAIndexNames:

4H-Pyrimido[6,1-a]isoquinolin-4-one, 2-(1,4-dioxan-2-ylmethoxy)-6,7-dihydro-9-(2-pyridinylmethoxy)-

### SMILES:

O=C1N=C(OCC2OCCOC2)C=C3N1CCC4=C3C=CC(OCC5=NC=CC=C5)=C4

**Caution: Product has not been fully validated for medical applications. For research use only.**

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