



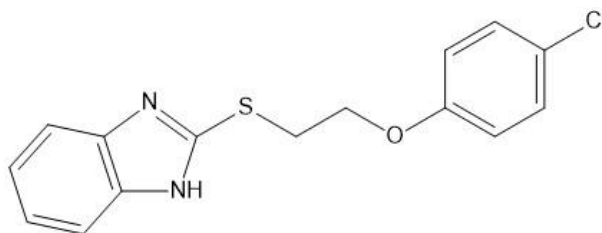
Catalog # 10-3382

CLP-3094

CAS# 312749-73-8

2-[[2-(4-Chlorophenoxy)ethyl]thio]-1H-benzimidazole

Lot # X109532



GPR142 is highly expressed in the pancreas and immune system and shares 33% homology with GPR139¹. Endogenous agonists identified to date include aromatic amino acids such as tryptophan and phenylalanine². CLP-3094 was identified as a potent and selective GPR142 antagonist with an IC_{50} =2.3 μ M against 1 mM L-tryptophan. It inhibited insulin secretion from islets induced by L-tryptophan and other agonists and displayed anti-inflammatory activity in a mouse arthritis model.³

- 1) Susens *et al.* (2006), *Characterisation and differential expression of two very closely related G-protein-coupled receptors, GPR139 and GPR142, in mouse tissue and during mouse development*, *Neuropharmacology*, **55** 512
- 2) Lizarzaburu *et al.* (2012), *Discovery and optimization of a novel series of GPR142 agonists for the treatment of type 2 diabetes mellitus*; *Bioorg. Med. Chem. Lett.*, **22** 5942
- 3) Murakoshi *et al.* (2017), *Discovery and pharmacological effects of a novel GPR142 antagonist*; *J. Recept. Signal. Transduct. Res.*, **37** 290

PHYSICAL DATA

Molecular Weight:	304.79
Molecular Formula:	C ₁₅ H ₁₃ ClN ₂ OS
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 45 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied desiccated at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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