TOCRIS
a bio-techne brand

Print Date: Apr 19th 2022

Certificate of Analysis

www.tocris.com

Product Name: **TC-G 1008** **Catalog No.: 5355** **Batch No.: 6**

CAS Number: 1621175-65-2

IUPAC Name: *N*-[3-Chloro-4-[[[2-(methylamino)-6-(2-pyridinyl)-4-pyrimidinyl]amino]methyl]phenyl]methanesulfonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{19}ClN_6O_2S.$

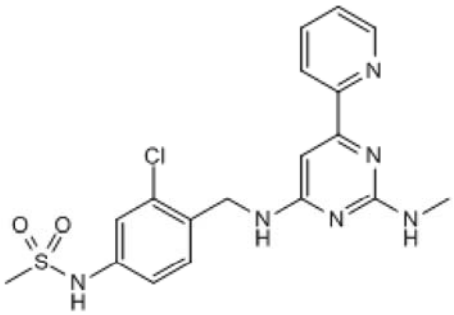
Batch Molecular Weight: 418.9

Physical Appearance: Cream solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	51.61	4.57	20.06
Found	51.19	4.52	19.69

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Product Information

Product Name: **TC-G 1008** **Catalog No.: 5355** **Batch No.: 6**

CAS Number: 1621175-65-2

IUPAC Name: *N*-[3-Chloro-4-[[[2-(methylamino)-6-(2-pyridinyl)-4-pyrimidinyl]amino]methyl]phenyl]methanesulfonamide

Description:

TC-G 1008 is a potent and selective GPR39 agonist (EC_{50} values are 0.4 and 0.8 nM for rat and human receptors respectively). Selective over a panel of kinases (IC_{50}s > 10 µM) and displays minimal binding affinity for ghrelin and neurotensin-1 receptors (IC_{50}s > 30 µM). Increases GLP-1 levels in vitro and in vivo. Reduces TNF-α-induced oxidative stress, mitochondrial dysfunction, cytokine expression and secretion of MMPs in fibroblast-like synoviocytes (FLS). Orally bioavailable.

Physical and Chemical Properties:

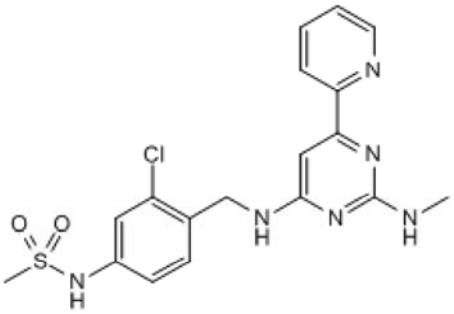
Batch Molecular Formula: $C_{18}H_{19}ClN_6O_2S$.

Batch Molecular Weight: 418.9

Physical Appearance: Cream solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Jing *et al* (2019) The protective effects of the GPR39 agonist TC-G 1008 against TNF-α-induced inflammation in human fibroblast-like synoviocytes (FLSs). Eur J Pharmacol ***865*** 172663. PMID: 31539553 .

Peukert *et al* (2014) Discovery of 2-pyridylpyrimidines as the first orally bioavailable GPR39 agonists. ACS Med.Chem.Lett. ***5*** 1114. PMID: 25313322.