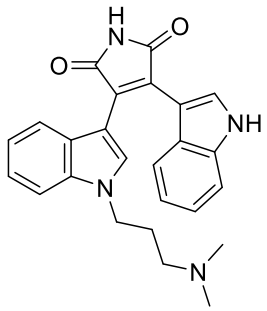
Product data sheet

MedKoo Cat#: 406278 Name: GF-109203X CAS: 133052-90-1 Chemical Formula: $C_{25}H_{24}N_4O_2$ Exact Mass: 412.18993 Molecular Weight: 412.493	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
GF-109203X is a potent and highly selective PCK inhibitor, which inhibits PKC isozymes alpha, beta 1, beta 2, gamma, delta and epsilon in vitro. GF-109203X inhibited GSK-3 in vitro, when assayed either in cell lysates (IC(50) 360 nM or in GSK-3beta immunoprecipitates (IC(50) 170 nM derived from rat epididymal adipocytes. Pretreatment of adipocytes with GF-109203X (5 microM) reduced GSK-3 activity in total cell lysates, to 25.1+/-4.3% of control.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMF	3.0	7.27
DMSO	32.33	78.37
DMSO:PBS (pH 7.2) (1:10)	0.1	0.24
Ethanol	1.0	2.42

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.42 mL	12.12 mL	24.24 mL
5 mM	0.48 mL	2.42 mL	4.85 mL
10 mM	0.24 mL	1.21 mL	2.42 mL
50 mM	0.05 mL	0.24 mL	0.48 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Krejci P, Masri B, Salazar L, Farrington-Rock C, Prats H, Thompson LM, Wilcox WR. Bisindolylmaleimide I suppresses fibroblast growth factor-mediated activation of Erk MAP kinase in chondrocytes by preventing Shp2 association with the Frs2 and Gab1 adaptor proteins. J Biol Chem. 2007 Feb 2;282(5):2929-36. doi: 10.1074/jbc.M606144200. Epub 2006 Dec 4. PMID: 17145761.
2. Hers I, Tavaré JM, Denton RM. The protein kinase C inhibitors bisindolylmaleimide I (GF 109203x) and IX (Ro 31-8220) are potent inhibitors of glycogen synthase kinase-3 activity. FEBS Lett. 1999 Nov 5;460(3):433-6. doi: 10.1016/s0014-5793(99)01389-7. PMID: 10556511.

In vivo study

TBD

7. Bioactivity

Product data sheet

Biological target:

Bisindolylmaleimide I (GF109203X) is a highly selective, cell-permeable, and reversible protein kinase C (PKC) inhibitor with a K_i of 14 nM.

In vitro activity

Fig. 1B demonstrates that Bis I inhibits both short term and long term FGF2-mediated Erk activation in RCS cells. Similar data were obtained with human primary chondrocytes (Fig. 1C).

Reference: J Biol Chem. 2007 Feb 2;282(5):2929-36. https://pubmed.ncbi.nlm.nih.gov/17145761/

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.