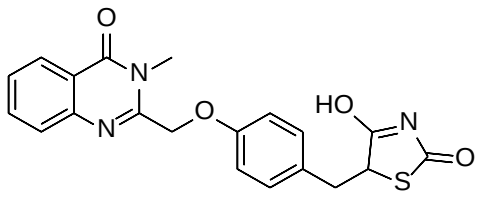
Product data sheet

MedKoo Cat#: 524366 Name: Balaglitazone CAS#: 199113-98-9 Chemical Formula: $C_{20}H_{17}N_3O_4S$ Exact Mass: 395.0940 Molecular Weight: 395.43	
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:
Balaglitazone is an agonist of peroxisome proliferator-activated receptor (PPAR) γ. Balaglitazone plays an important role in the regulation of insulin, triglycerides and lipid metabolism. It is an attractive target for the therapy of Type II Diabetes.

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	30.0	75.87
DMSO	65.0	164.38
DMSO:PBS (pH 7.2) (1:3)	0.25	0.63

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	2.53 mL	12.64 mL	25.29 mL
5 mM	0.51 mL	2.53 mL	5.06 mL
10 mM	0.25 mL	1.26 mL	2.53 mL
50 mM	0.05 mL	0.25 mL	0.51 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. Yousefi B, Azimi A, Majidinia M, Shafiei-Irannejad V, Badalzadeh R, Baradaran B, Zarghami N, Samadi N. Balaglitazone reverses P-glycoprotein-mediated multidrug resistance via upregulation of PTEN in a PPARγ-dependent manner in leukemia cells. Tumour Biol. 2017 Oct;39(10):1010428317716501. doi: 10.1177/1010428317716501. PMID: 28978268.

In vivo study

TBD

7. Bioactivity
Biological target: Balaglitazone is a PPARγ agonist with an EC50 of 1.351 μM for human PPARγ.

In vitro activity

Balaglitazone considerably enhanced the cytotoxicity of doxorubicin in human myelogenous leukemia (K562/DOX) cells. Balaglitazone also significantly downregulated P-glycoprotein expression and activity in K562/DOX cells and reduced multidrug resistance through elevation of intracellular doxorubicin in cells. Furthermore, upon balaglitazone treatment, phosphatase and tensin homolog deleted on chromosome 10 expression could be restored in K562/DOX cells in a peroxisome proliferator-activated receptor

Product data sheet

γ-dependent manner. These results suggested that balaglitazone could reverse multidrug resistance by inducing phosphatase and tensin homolog deleted on chromosome 10 and peroxisome proliferator-activated receptor/ phosphatase and tensin homolog deleted on chromosome 10 signaling pathway.

Reference: Tumour Biol. 2017 Oct;39(10):1010428317716501.
https://journals.sagepub.com/doi/10.1177/1010428317716501?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%20%200pubmed

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.