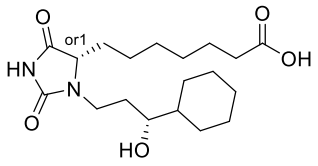
Product data sheet

MedKoo Cat#: 584316 Name: BW245C CAS#: 72814-32-5 Chemical Formula: $C_{19}H_{32}N_2O_5$ Exact Mass: 368.2311 Molecular Weight: 368.474	
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:
BW245C has potent platelet anti-aggregating actions following parenteral or oral administration which makes this hydantoin a potentially-useful anti-thrombotic prostaglandin analogue.

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
PBS (pH 7.2)	2.37	6.43

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.71 mL	13.57 mL	27.14 mL
5 mM	0.54 mL	2.71 mL	5.43 mL
10 mM	0.27 mL	1.36 mL	2.71 mL
50 mM	0.05 mL	0.27 mL	0.54 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. Peinhaupt M, Roula D, Theiler A, Sedej M, Schicho R, Marsche G, Sturm EM, Sabroe I, Rothenberg ME, Heinemann A. DP1 receptor signaling prevents the onset of intrinsic apoptosis in eosinophils and functions as a transcriptional modulator. J Leukoc Biol. 2018 Jul;104(1):159-171. doi: 10.1002/JLB.3MA1017-404R. Epub 2018 Apr 1. PMID: 29607536; PMCID: PMC6032830.

In vivo study

1. Kumar S, Palaia T, Hall C, Ragolia L. DP1 receptor agonist, BW245C inhibits diet-induced obesity in ApoE-/- mice. Obes Res Clin Pract. 2018 Mar-Apr;12(2):229-241. doi: 10.1016/j.orcp.2017.05.003. Epub 2017 Jun 8. PMID: 28602634.
2. van den Brule S, Wallemme L, Uwambayinema F, Huaux F, Lison D. The D prostanoid receptor agonist BW245C [(4S)-(3-[(3R,S)-3-cyclohexyl-3-hydroxypropyl]-2,5-dioxo)-4-imidazolidineheptanoic acid] inhibits fibroblast proliferation and bleomycin-induced lung fibrosis in mice. J Pharmacol Exp Ther. 2010 Nov;335(2):472-9. doi: 10.1124/jpet.110.169250. Epub 2010 Aug 18. PMID: 20719937.

7. Bioactivity
Biological target:

A selective DP_1 receptor agonist.

In vitro activity

Product data sheet

The specific DP1 agonist BW245c significantly enhanced the percentage of viable cells (Annexin V^-/PI^-) from 25 to 50% of all eosinophils; by comparison, IL-5 maintained 59% of the cells viable (Fig. 1A). BW245c concentration-dependently inhibits apoptosis of eosinophils, with a half maximal efficacy (EC50) of 0.826 μM (Supplementary Fig. 1). PGD_2 itself moderately increased the percentage of viable cells to 39%.

Reference: J Leukoc Biol. 2018 Jul; 104(1): 159–171. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6032830/

In vivo activity

Despite being on high fat diet, mice receiving DP1 receptor agonist (BW245C) sustained a significant inhibition of weight gain throughout the study gaining only 11.4% body weight compared to the controls gaining 61% body weight.

Reference: Obes Res Clin Pract. 2018 Mar-Apr;12(2):229-241. https://pubmed.ncbi.nlm.nih.gov/28602634/

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.