

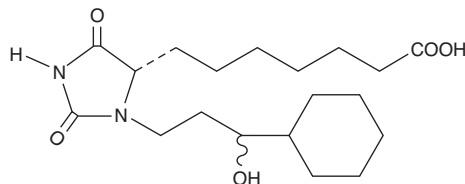
# Product Information



## BW 245C

Catalog No. 12050

**CAS Registry No.:** 72814-32-5  
**Formal Name:** (4S)-(3-[(3R,S)-3-cyclohexyl-3-hydroxypropyl]-2,5-dioxo)-4-imidazolidineheptanoic acid  
**MF:** C<sub>19</sub>H<sub>32</sub>N<sub>2</sub>O<sub>5</sub>  
**FW:** 368.5  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**Supplied as:** A crystalline solid



### Laboratory Procedures

For long term storage, we suggest that BW 245C be stored as supplied at -20°C. It will be stable for at least one year.

BW 245C is sparingly soluble in water but freely soluble in organic solvents such as ethanol, DMSO, or dimethyl formamide. The solubility of BW 245C in these solvents is approximately 50 mg/ml. BW 245C is stable for at least six months in these solvents if stored at -20°C. Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Also, ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Organic solvent-free aqueous solutions of BW 245C can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of BW 245C in PBS (pH 7.2) is approximately 2.2 mg/ml. Avoid adding BW 245C to basic solutions (pH>7.4), since base treatment will isomerize BW 245C to a mixture of BW 245C and its less active isomer BW 246C. Again, we do not recommend storing the aqueous solution for more than one day.

BW 245C is a hydantoin compound with prostaglandin D<sub>2</sub> (PGD<sub>2</sub>)-like activity. BW 245C is a selective agonist for the DP receptor, and through this interaction exhibits PGD<sub>2</sub>-like activity.<sup>1,2</sup> The K<sub>i</sub> of BW 245C for the inhibition of [<sup>3</sup>H]-PGD<sub>2</sub> binding to isolated human platelet membranes is 0.9 nM.<sup>1</sup> BW 245C has a reported IC<sub>50</sub> of 2.5 nM for the inhibition of ADP-induced human platelet aggregation.<sup>3</sup> It is also species selective; the activity of BW 245C is 100- fold greater in human PRP than in rat PRP.<sup>2</sup>

### References

1. Boie, Y., Sawyer, N., Slipetz, D.M., *et al.* Molecular cloning and characterization of the human prostanoid DP receptor. *J. Biol. Chem.* **270**, 18910-18916 (1995).
2. Town, M., Casals-Stenzel, J., Schillinger, E. Pharmacological and cardiovascular properties of a hydantoin derivative, BW 245 C, with high affinity and selectivity for PGD<sub>2</sub> receptors. *Prostaglandins* **25**, 13-28 (1983).
3. Narumiya, S. and Toda, N. Different responsiveness of prostaglandin D<sub>2</sub>-sensitive systems to prostaglandin D<sub>2</sub> and its analogues. *Br. J. Pharmacol.* **85**, 367-375 (1985).

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**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

#### MATERIAL SAFETY DATA

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