

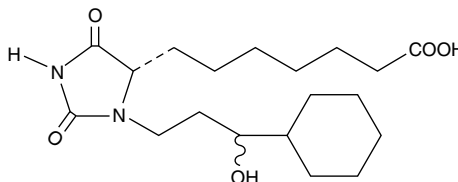
Product Information



BW 245C

Item 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: C₁₉H₃₂N₂O₅
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 D₂ (PGD₂)-like activity. BW 245C is a selective agonist for the DP receptor, and through this interaction exhibits PGD₂-like activity.^{1,2} The K_i of BW 245C for the inhibition of [³H]-PGD₂ binding to isolated human platelet membranes is 0.9 nM.¹ BW 245C has a reported IC₅₀ of 2.5 nM for the inhibition of ADP-induced human platelet aggregation.³ It is also species selective; the activity of BW 245C is 100-fold greater in human PRP than in rat PRP.²

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 PGD₂ receptors. *Prostaglandins* **25**, 13-28 (1983).
3. Narumiya, S. and Toda, N. Different responsiveness of prostaglandin D₂-sensitive systems to prostaglandin D₂ and its analogues. *Br. J. Pharmacol.* **85**, 367-375 (1985).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/12050

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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