

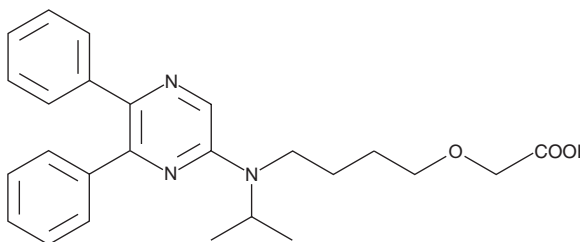
PRODUCT INFORMATION



MRE-269

Item No. 10010412

CAS Registry No.: 475085-57-5
Formal Name: [4-[(5,6-diphenylpyrazinyl)(1-methylethyl)amino]butoxy]-acetic acid
MF: C₂₅H₂₉N₃O₃
FW: 419.5
Purity: ≥98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

MRE-269 is supplied as a crystalline solid. A stock solution may be made by dissolving the MRE-269 in an organic solvent purged with an inert gas. MRE-269 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of MRE-269 in these solvents is approximately 12 mg/ml.

MRE-269 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MRE-269 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. MRE-269 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Prostacyclin (PGI₂) is a potent vasorelaxant and inhibitor of platelet aggregation. It mediates its actions by binding to a specific G protein-coupled receptor, the IP receptor, on the surface of endothelial cells, arterial smooth muscle, and platelets.¹ The IP receptor also participates in signal transduction of the pain response, cardioprotection, and inflammation.²⁻⁵ MRE-269 is the active form of the prodrug NS-304. It is a potent and selective agonist for the human IP receptor with a K_i value of 20 nM.⁶ In contrast to PGI₂, which has a half-life of 30 seconds to a few minutes *in vivo*, plasma concentrations of MRE-269 remain near peak levels for more than eight hours in rats and dogs.⁶ Unlike the PGI₂ analogues, beraprost and iloprost, MRE-269 lacks high affinity for the EP₃ receptor.⁷ As a result, MRE-269 induces vasodilation equally in large and small pulmonary arteries, whereas vasodilation of small arteries by beraprost and iloprost is reduced *via* EP₃-mediated vasoconstriction.⁷

References

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WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM