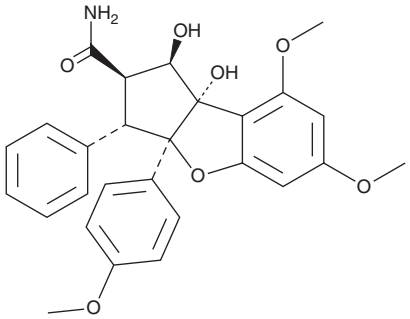
PRODUCT INFORMATION

Didesmethylrocaglamide

Item No. 45809

CAS Registry No.: 177262-30-5
Formal Name: (1R,2R,3S,3aR,8bS)-2,3,3a,8b-tetrahydro-1,8b-dihydroxy-6,8-dimethoxy-3a-(4-methoxyphenyl)-3-phenyl-1H-cyclopenta[b]benzofuran-2-carboxamide
Synonyms: (–)-DDR, (–)-Didesmethylrocaglamide
MF: $C_{27}H_{27}NO_7$
FW: 477.5
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Didesmethylrocaglamide is supplied as a solid. A stock solution may be made by dissolving the didesmethylrocaglamide in the solvent of choice, which should be purged with an inert gas. Didesmethylrocaglamide is soluble (≥10 mg/ml) in DMSO.

Description

Didesmethylrocaglamide is a flavagline that has been found in *A. perviridis* and has NF-κB inhibitory and anticancer activities.[1-3] It inhibits NF-κB activation induced by TNF-α or phorbol 12-myristate 13-acetate (PMA; Item No. 10008014) in Jurkat T cells (IC_{50}s = 58.4 and 43.6 nM, respectively); however, it is not active in an ELISA NF-κB assay (EC_{50} = >20 µM).[1,2] Didesmethylrocaglamide is selectively cytotoxic to HT-29 colon cancer cells over CCD-112CoN normal colon cells (IC_{50}s = 0.021 and >50 µM, respectively).[1] It decreases protein levels of mitogenic kinases and STAT3, which is consistent with protein translation inhibition, in MG-63 osteosarcoma cells but does not affect protein levels of eukaryotic translation initiation factor 4A1 (eIF4A1) or eIF4A2 in the same cells.[3] Didesmethylrocaglamide reduces tumor volume and induces intratumoral apoptosis in a patient-derived xenograft (PDX) mouse model of canine osteosarcoma.

References

1. Pan, L., Acuña, U.M., Li, J., *et al*. Bioactive flavaglines and other constituents isolated from *Aglaia perviridis*. *J. Nat. Prod.* **76(3)**, 394-404 (2013).
2. Baumann, B., Bohnenstengel, F., Siegmund, D., *et al*. Rocaglamide derivatives are potent inhibitors of NF-κB activation in T-cells. *J. Biol. Chem*. **277(47)**, 44791-44800 (2002).
3. Oblinger, J.L., Wang, J., Wetherell, G.D., *et al*. Anti-tumor effects of the eIF4A inhibitor didesmethylrocaglamide and its derivatives in human and canine osteosarcomas. *Sci. Rep*. **14(1)**, 19349 (2024).

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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