

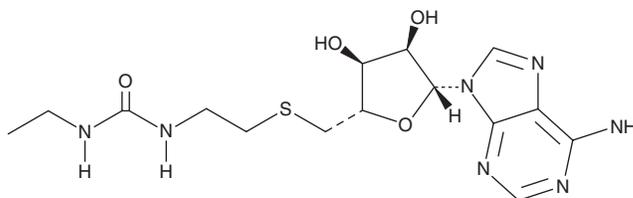
PRODUCT INFORMATION



DS-437

Item No. 29476

CAS Registry No.: 1674364-87-4
Formal Name: 5'-S-[2-[[[(ethylamino)carbonyl]amino]ethyl]-5'-thio-adenosine
MF: C₁₅H₂₃N₇O₄S
FW: 397.5
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

DS-437 is supplied as a solid. A stock solution may be made by dissolving the DS-437 in the solvent of choice, which should be purged with an inert gas. DS-437 is soluble in the organic solvent DMSO.

Description

DS-437 is a dual inhibitor of protein arginine methyltransferase 5 (PRMT5) and PRMT7 (IC₅₀s = 5.9 and 6 μM, respectively).¹ It is selective for PRMT5 and PRMT7 over a panel of 29 additional protein, DNA, and RNA methyltransferases at 50 μM, but also inhibits DNMT3A and DNMT3B (IC₅₀s = 52 and 62 μM, respectively). DS-437 (2.5 and 10 μM) inhibits symmetrical arginine dimethylation of FOXP3 in HEK293T cells, as well as symmetrical arginine dimethylation of p60 and the ribonucleoproteins SmD1/D3 and SmB/B' in MDA-MB-231 cells in a concentration-dependent manner.^{1,2} It inhibits the ability of regulatory T cells (Tregs) to suppress effector T cell (Teff) proliferation *in vitro* in human and murine Treg suppression assays.² DS-437 (10 mg/kg five times per week) reduces tumor growth in a CT26Her2 murine colon cancer model when administered in combination with the anti-p185^{erbB2/neu} antibody 4D5.

References

- Smil, D., Eram, M.S., Li, F., *et al.* Discovery of a dual PRMT5-PRMT7 inhibitor. *ACS Med. Chem. Lett.* **6**(4), 408-412 (2015).
- Nagai, Y., Ji, M.Q., Zhu, F., *et al.* PRMT5 associates with the FOXP3 homomer and when disabled enhances targeted p185^{erbB2/neu} tumor immunotherapy. *Front. Immunol.* **10**:174 (2019).

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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