

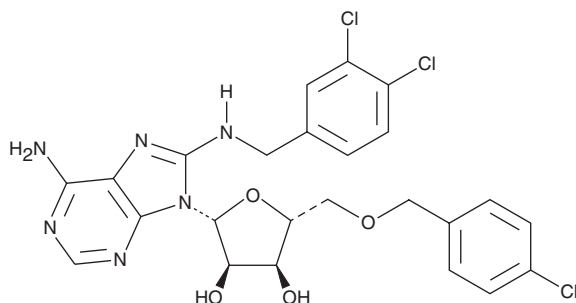
PRODUCT INFORMATION



VER-155008

Item No. 17257

CAS Registry No.: 1134156-31-2
Formal Name: 5'-O-[(4-cyanophenyl)methyl]-
8-[[[(3,4-dichlorophenyl)methyl]
amino]-adenosine
MF: C₂₅H₂₃Cl₂N₇O₄
FW: 556.4
Purity: ≥95%
UV/Vis.: λ_{max}: 216, 275 nm
Supplied as: A crystalline 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

VER-155008 is supplied as a crystalline solid. A stock solution may be made by dissolving the VER-155008 in the solvent of choice, which should be purged with an inert gas. VER-155008 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of VER-155008 in these solvents is approximately 30 mg/ml.

VER-155008 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VER-155008 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. VER-155008 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

VER-155008 is an adenosine-derived inhibitor of heat shock protein 70 (Hsp70; IC₅₀ = 0.5 μM) that is selective over Hsp90.¹ It targets the nucleotide-binding domain (NBD) of Hsp70 and similarly binds the NBDs of Hsp70 cognates Hsc70 (K_i = 10 μM) and glucose-regulated protein 78 (Grp78; K_D = 80 nM).^{2,3} VER-155008 inhibits the proliferation of human breast and colon cancer cell lines, inducing apoptosis or caspase-independent cell death.⁴ It induces the proteasome-dependent degradation of Hsp90 client proteins and potentiates the apoptotic activity of Hsp90 inhibitors.^{1,4} VER-155008 also triggers paraptosis in anaplastic thyroid carcinoma cells.⁵

References

1. Williamson, D.S., Borgognoni, J., Clay, A., *et al.* Novel adenosine-derived inhibitors of 70 kDa heat shock protein, discovered through structure-based design. *J. Med. Chem.* **52**(6), 1510-1513 (2009).
2. Schlecht, R., Scholz, S.R., Dahmen, H., *et al.* Functional analysis of Hsp70 inhibitors. *PLoS One* **8**(11), (2013).
3. Macias, A.T., Williamson, D.S., Allen, N., *et al.* Adenosine-derived inhibitors of 78 kDa glucose regulated protein (Grp78) ATPase: insights into isoform selectivity. *J. Med. Chem.* **54**(12), 4034-4041 (2011).
4. Massey, A.J., Williamson, D.S., Browne, H., *et al.* A novel, small molecule inhibitor of Hsc70/Hsp70 potentiates Hsp90 inhibitor induced apoptosis in HCT116 colon carcinoma cells. *Cancer Chemother. Pharmacol.* **66**(3), 535-545 (2015).
5. Kim, S.H., Kang, J.G., Kim, C.S., *et al.* The hsp70 inhibitor VER155008 induces paraptosis requiring de novo protein synthesis in anaplastic thyroid carcinoma cells. *Biochim. Biophys. Acta* **454**(1), 36-41 (2014).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/18/2022

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