

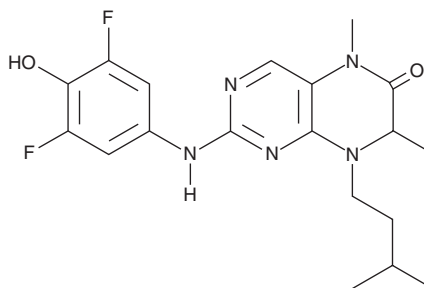
PRODUCT INFORMATION



BI-D1870

Item No. 15264

CAS Registry No.: 501437-28-1
Formal Name: 2-[(3,5-difluoro-4-hydroxyphenyl)amino]-7,8-dihydro-5,7-dimethyl-8-(3-methylbutyl)-6(5H)-pteridinone
MF: C₁₉H₂₃F₂N₅O₂
FW: 391.4
Purity: ≥95%
UV/Vis.: λ_{max}: 262, 296 nmm
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

BI-D1870 is supplied as a crystalline solid. A stock solution may be made by dissolving the BI-D1870 in the solvent of choice, which should be purged with an inert gas. BI-D1870 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of BI-D1870 in these solvents is approximately 15 and 10 mg/ml, respectively.

BI-D1870 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BI-D1870 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BI-D1870 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The 90 kDa ribosomal S6 kinases (RSKs) are a group of serine/threonine kinases involved in diverse cellular processes, including growth, survival, and motility.¹ BI-D1870 is a cell permeable, ATP-competitive inhibitor of the four vertebrate isoforms of RSK, RSK1-4 (IC₅₀s = 31, 24, 18, and 15 nM, respectively).² At 100 nM, it also significantly inhibits polo-like kinase 1, Aurora B, maternal embryonic leucine zipper kinase, and mammalian STE20-like kinase 2.^{2,3} BI-D1870 acts at the N-terminal kinase domain, but not the C-terminal domain, of RSK.^{2,3}

References

1. Romeo, Y., Zhang, X., and Roux, P.P. Regulation and function of the RSK family of protein kinases. *Biochem. J.* **441**(2), 553-569 (2012).
2. Sapkota, G.P., Cummings, L., Newell, F.S., et al. BI-D1870 is a specific inhibitor of the p90 RSK (ribosomal S6 kinase) isoforms *in vitro* and *in vivo*. *Biochem. J.* **401**(1), 29-38 (2007).
3. Bain, J., Plater, L., Elliot, M., et al. The selectivity of protein kinase inhibitors: A further update. *Biochem. J.* **408**, 297-315 (2007).

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

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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