

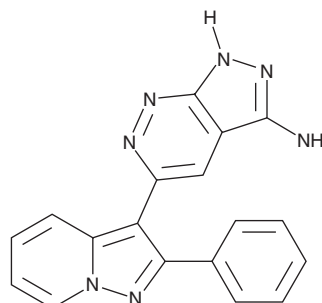
PRODUCT INFORMATION



FR180204

Item No. 15544

CAS Registry No.: 865362-74-9
Formal Name: 5-(2-phenylpyrazolo[1,5-a]pyridin-3-yl)-1H-pyrazolo[3,4-c]pyridazin-3-amine
Synonym: ERK Inhibitor II
MF: C₁₈H₁₃N₇
FW: 327.3
Purity: ≥98%
UV/Vis.: λ_{max}: 252, 299, 409 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

FR180204 is supplied as a crystalline solid. A stock solution may be made by dissolving the FR180204 in the solvent of choice, which should be purged with an inert gas. FR180204 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of FR180204 in these solvents is approximately 25 and 30 mg/ml, respectively.

FR180204 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, FR180204 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. FR180204 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

FR180204 is a potent cell-permeable inhibitor of ERK1 and ERK2 ($K_i = 310$ and 140 nM, respectively).¹ It is much less effective against p38α ($IC_{50} = 10$ μM) and does not inhibit a range of other serine/threonine or tyrosine kinases.¹ FR180204 blocks ERK-mediated signaling from TGF-β to AP-1 ($IC_{50} = 3.1$ μM).¹ It attenuates delayed-type hypersensitivity in collagen-immunized mice and ameliorates collagen-induced arthritis in mice.²

References

1. Otori, M., Kinoshita, T., Okubo, M., *et al.* Identification of a selective ERK inhibitor and structural determination of the inhibitor-ERK2 complex. *Biochem. Biophys. Res. Commun.* **336(1)**, 357-363 (2005).
2. Otori, M., Takeuchi, M., Maruki, R., *et al.* FR180204, a novel and selective inhibitor of extracellular signal-regulated kinase, ameliorates collagen-induced arthritis in mice. *Naunyn Schmiedeberg's Arch. Pharmacol.* **374(4)**, 311-316 (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.

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