

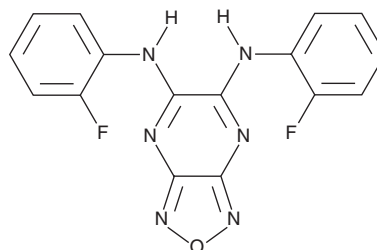
PRODUCT INFORMATION



BAM15

Item No. 17811

CAS Registry No.: 210302-17-3
Formal Name: N⁵,N⁶-bis(2-fluorophenyl)-[1,2,5]oxadiazolo[3,4-b]pyrazine-5,6-diamine
MF: C₁₆H₁₀F₂N₆O
FW: 340.3
Purity: ≥98%
UV/Vis.: λ_{max}: 205, 230, 330 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

BAM15 is supplied as a crystalline solid. A stock solution may be made by dissolving the BAM15 in the solvent of choice, which should be purged with an inert gas. BAM15 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of BAM15 in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

BAM15 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BAM15 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BAM15 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Typical mitochondrial uncouplers are lipophilic weak acids that increase proton transport into the mitochondrial matrix through an ATP synthase-independent pathway, thereby uncoupling nutrient oxidation from ATP production. These chemicals are used to determine rate of cellular respiration and have antioxidant effects that protect from ischemia-reperfusion injury. Most proton transporter uncouplers, however, exhibit off-target activity that can lead to undesired effects, including plasma membrane depolarization, mitochondrial inhibition, and cytotoxicity. BAM15 is a mitochondrial protonophore uncoupler that does not depolarize the plasma membrane and protects mice from acute renal ischemic-reperfusion injury.¹ In comparison to FCCP (Item No. 15218), 1-10 μM BAM15 was shown to increase oxygen flux with equal potency as the classic uncoupler, while displaying a higher maximum rate of mitochondrial respiration and less cytotoxicity.¹

Reference

1. Kenwood, B.M., Weaver, J.L., Bajwa, A., *et al.* Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. *Mol. Metab.* **3**(2), 114-123 (2013).

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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