

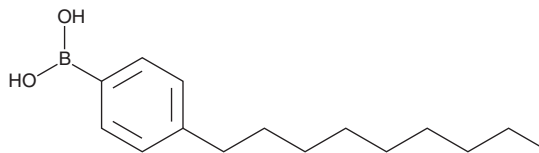
PRODUCT INFORMATION



4-(n-nonyl) Benzenboronic Acid

Item No. 13140

CAS Registry No.: 256383-45-6
Formal Name: B-(4-nonylphenyl)-boronic acid
MF: C₁₅H₂₅BO₂
FW: 248.2
Purity: ≥98%
UV/Vis.: λ_{max}: 226 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

4-(n-nonyl) Benzenboronic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the 4-(n-nonyl) benzenboronic acid in the solvent of choice, which should be purged with an inert gas. 4-(n-nonyl) Benzenboronic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of 4-(n-nonyl) benzenboronic acid in these solvents is approximately 30 mg/ml.

4-(n-nonyl) Benzenboronic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 4-(n-nonyl) benzenboronic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 4-(n-nonyl) Benzenboronic acid has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Fatty acid amide hydrolase (FAAH) is the primary enzyme responsible for the hydrolysis of the endocannabinoid arachidonoyl ethanolamide (AEA). 4-(n-Nonyl) benzenboronic acid is a potent inhibitor of FAAH, with an IC₅₀ of 9.1 nM.¹ It is also able to inhibit monoacylglycerol lipase (MAGL), which hydrolyzes 2-arachidonoyl glycerol (2-AG), but at ~1000-fold higher concentration (IC₅₀ = 7.9 μM).¹

References

1. Minkkilä, A., Saario, S.M., Käsnänen, H., *et al.* Discovery of boronic acids as novel and potent inhibitors of fatty acid amide hydrolase. *J. Med. Chem.* **51(22)**, 7057-7060 (2008).

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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