PRODUCT INFORMATION

ABH
Item No. 10006862

CAS Registry No.: 222638-65-5
Formal Name: 6-borono-L-norleucine
Synonym: Amino-2-Borono-6-Hexanoic Acid
MF: C₆H₁₄BNO₄
FW: 175.0
Purity: ≥90%
UV/Vis.: λ_max: 256 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

ABH is supplied as a crystalline solid. Aqueous solutions of ABH can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ABH in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

L-Arginine serves as a common substrate for both nitric oxide synthase (NOS) and arginase in the cell. NOS catalyzes the oxidation of arginine to citrulline and NO with Nω-hydroxy-L-arginine formed as an intermediate. Arginase, on the other hand, catalyzes the hydrolysis of arginine into urea and L-ornithine.

ABH is a slow-binding competitive inhibitor of human arginase II with Kᵢ values of 0.25 µM and 8.5 nM at pH 7.5 and 9.5, respectively. ABH enhances both male and female sexual arousal responses in rabbits, an effect which may be due to increased NO bioavailability resulting from arginase inhibition. Inhibition of arginase is therefore a potential therapeutic target for the treatment of sexual arousal disorders.

References