

Product Data Sheet

Product Name: Coumarin Boronic Acid

Cat. No.: GC43316

Chemical Properties

Cas. No. 1357078-03-5

SMILES O=C1OC2=CC(B(O)O)=CC=C2C=C1

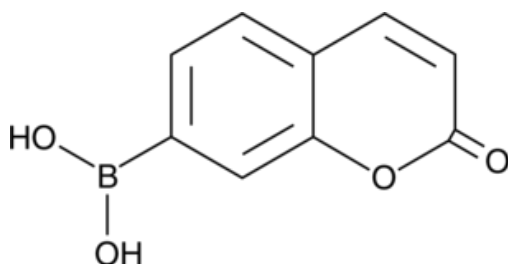
Formula C9H7BO4 M.Wt 190

Solubility DMF: 11 mg/ml, DMSO: 3 mg/ml, DMSO:PBS (pH 7.2) (1:1): 0.5 mg/ml, Ethanol: 1 mg/ml
Storage 4°C, stored under nitrogen

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

Coumarin boronic acid (CBA) is a fluorescent probe that can be used to detect peroxynitrite, hypochlorous acid, and hydrogen peroxide. It reacts with peroxynitrite at an exponentially faster rate ($k = 1.1 \mu\text{M/s}$) than hydrogen peroxide ($k = 1.5 \text{ M/s}$) and moderately faster rate than hypochlorous acid. Peroxynitrite oxidizes CBA into the fluorescent product 7-hydroxycoumarin (COH), which displays excitation/emission maxima of 332/470 nm, respectively.

Caution: Product has not been fully validated for medical applications. For research use only.

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