3-(N-Maleimidopropionyl)-biocytin

Item No. 10008879

CAS Registry No.: 102849-12-7
Formal Name: N²-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-N⁶-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]-L-lysine
Synonym: MPB
MF: C₂₃H₃₃N₅O₇S
FW: 523.6
Purity: ≥80%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_max: 205 nm

For long term storage, we suggest that 3-(N-maleimidopropionyl)-biocytin (MPB) be stored as supplied at -20°C. It should be stable for at least two years.

MPB is supplied as a crystalline solid. A stock solution may be made by dissolving the MPB in an organic solvent purged with an inert gas. MPB is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of MPB in these solvents is approximately 2.5 and 1.5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of MPB can be prepared by directly dissolving the crystalline compound in aqueous buffers. The solubility of MPB in PBS, pH 7.2, is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

MPB is a versatile thiol-specific biotinylating reagent. It is specific for sulfhydryl groups or reduced disulfide bonds and will not label proteins lacking a free sulfhydryl group at a pH between 6.5 and 7.5. This probe can be used in combination with the appropriate avidin- or streptavidin-conjugated markers (i.e., fluorescent, enzyme-conjugated, etc.). MPB can be used to detect protein sulfhydryl groups on dot blots with sensitivities in the femtomole range.¹ MPB can be utilized for cell sorting, enzyme immunoassay, protein blotting, and various cytochemical procedures.¹

Reference

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/10008879