

Product Data Sheet

Product Name: L-Alanine-d3

Cat. No.: GC49373

Chemical Properties

Cas. No. 63546-27-0

SMILES OC([C@@H](N)C([2H])([2H])[2H])=O

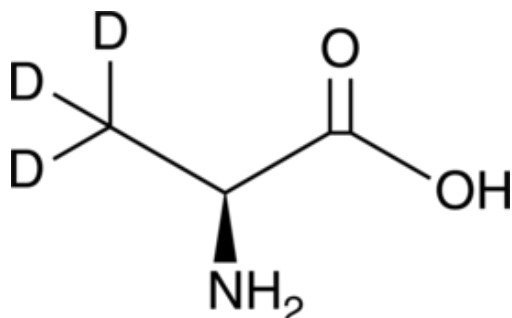
Formula C3H4D3NO2 M.Wt 92.1

Solubility DMF: insol,DMSO: insol,Ethanol: Storage -20°C
insol,PBS (pH 7.2): 5 mg/ml

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

L-Alanine-d3 is intended for use as an internal standard for the quantification of L-alanine by GC- or LC-MS. L-Alanine is a non-essential amino acid.¹ It is produced by direct β -decarboxylation of L-aspartate by L-aspartate β -decarboxylase or transamination of pyruvate in the glucose-alanine cycle and is a precursor for gluconeogenesis.² Dysregulation of L-alanine metabolism is associated with various disease states, including diabetes, metabolic syndrome, ketotic hypoglycemia, and acquired acute lactic acidosis.

1.Grabner, R., Kasper, P., Malashkevich, V.N., et al.Conversion of aspartate aminotransferase into an L-aspartate β -decarboxylase by a triple active-site mutationJ. Biol. Chem.274(44)31203-31208(1999)

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

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2.Felig, P. Progress in endocrinology and metabolism: The glucose-alanine cycle *Metabolism* 22(2)179-207(1973)

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