Data Sheet (Cat.No.T37755)

TargetMol

Phenylacetyl-Coenzyme A (sodium salt)

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Phenylacetyl-coenzyme A (CoA) is a key intermediate in aerobic catabolism of phenylacetate in bacteria such asPseudomonas, when cultured in minimal media using phenylacetate as the sole carbon source.1It is a precursor in the synthesis of the antibiotic penicillin G found in industrial strains ofP. chrysogenum. Phenylacetyl-CoA also acts as an effector molecule of the TetR family transcriptional repressor PaaR inT. thermophilusand the GntR family transcriptional regulator PaaX inE. coliandPseudomonas, binding to each protein to induce derepression of various genes. 2
Targets(IC50)	Others

Solubility Information

Solubility	PBS (pH 7.2): 10 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Reference

Mi?ambres, B., Martínex-Blanco, H., Olivera, E.R., et al.Molecular cloning and expression in different microbes of the DNA encoding Pseudomonas putida U phenylacetyl-CoA ligase. Use of this gene to improve the rate of benzylpenicillin biosynthesis in Penicillium chrysogenumJ. Biol. Chem.271(52)33531-33538(1996)
Sakamoto, K., Agari, Y., Kuramitsu, S., et al.Phenylacetyl coenzyme A is an effector molecule of the TetR family transcriptional repressor PaaR from Thermus thermophilus HB8J. Bacteriol.193(17)4388-4395(2011)

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