

Product Data Sheet

Product Name: L,L-Dityrosine

Cat. No.: GC36414

Chemical Properties

Cas. No. 63442-81-9

SMILES O=C(O)[C@@H](N)CC1=CC(C2=C(O)C=CC(C[C@H](N)C(O)=O)=C2)=C(O)C=C1

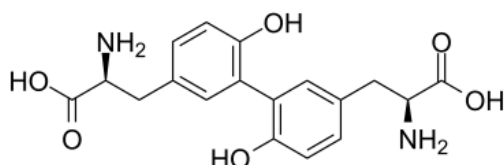
Formula $C_{18}H_{20}N_2O_6$ M.Wt 360.36

Solubility Water: 5.56 mg/mL (15.43 mM) Storage Store at 4°C, sealed storage, away from moisture and light

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,L-Dityrosine is an important component of the yeast spore wall, and the content is relatively high, which may be related to the structural stability and stress resistance of the spore wall^[1,2]. L,L-Dityrosine has unique fluorescence properties, and the fluorescence lifetime and quantum yield show significant differences in different solvents^[3]. L,L-Dityrosine has been used in molecular dynamics

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

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simulation studies and fluorescence analysis^[4].

References:

- [1] Briza P, Winkler G, Kalchhauser H, et al. Dityrosine is a prominent component of the yeast ascospore wall. A proof of its structure[J]. Journal of Biological Chemistry, 1986, 261(9): 4288-4294.
- [2] Briza P, Eckerstorfer M, Breitenbach M. The sporulation-specific enzymes encoded by the DIT1 and DIT2 genes catalyze a two-step reaction leading to a soluble LL-dityrosine-containing precursor of the yeast spore wall[J]. Proceedings of the National Academy of Sciences, 1994, 91(10): 4524-4528.
- [3] Kungl A J, Breitenbach M, Kauffmann H F. Molecular dynamics simulation of the rare amino acid LL-dityrosine and a dityrosine-containing peptide: comparison with time-resolved fluorescence[J]. Biochimica et Biophysica Acta (BBA)-General Subjects, 1994, 1201(3): 345-352.
- [4] Briza P, Ellinger A, Winkler G, et al. Characterization of a DL-dityrosine-containing macromolecule from yeast ascospore walls[J]. Journal of Biological Chemistry, 1990, 265(25): 15118-15123.

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