
Product Data Sheet

Product Name: 5-Carboxytetramethylrhodamine

Cat. No.: GC64189

Chemical Properties

Cas. No. 150322-05-7

Formula C₂₅H₂₂N₂O₅

M.Wt 430.45

Solubility DMSO : 12.5 mg/mL (29.04 mM; ultrasonic and warming and heat to 60°C)

Storage Store at -20°C

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

5-Carboxytetramethylrhodamine is a fluorescent dye that has commonly been used for the covalent labeling of oligonucleotides for DNA analysis.¹ It displays excitation and emission maxima of 546 and 580 nm, respectively.² 5-Carboxytetramethylrhodamine has also been used in various fluorescence polarization assays and protein FRET experiments.^{2,3}

1.Kvach, M.V., Stepanova, I.A., Prokhorenko, I.A., et al. Practical synthesis of isomerically pure 5- and 6-carboxytetramethylrhodamines, useful dyes for DNA probes *Bioconjug. Chem.* 20(8)1673-1682(2009) 2.Qi, J., Oppenheimer, M., and Sobrado, P. Fluorescence polarization binding assay for *Aspergillus fumigatus* virulence factor UDP-galactopyranose mutase *Enzyme Res.* 513905(2011) 3.Casiraghi, A., Longhena, F., Straniero, V., et al. Design and synthesis of fluorescent-methylphenidate analogues for FRET-based assay of synapsin III binding *ChemMedChem* 15(14)1330-1337(2020)

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

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