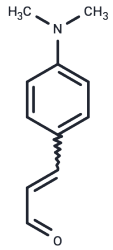
Data Sheet (Cat.No.TN6657)

TargetMol

4-(Dimethylamino)cinnamaldehyde

Chemical Properties



CAS No. : 6203-18-5

Formula: C11H13NO

Molecular Weight: 175.23

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	4-Dimethylaminocinnamaldehyde is a photometric reagent for primary aromatic amines. The 4-(dimethylamino)cinnamaldehyde assay is currently used to quantify proanthocyanidin (PAC) content in cranberry products.
In vitro	The 4-(Dimethylamino)cinnamaldehyde (DMAC) assay is currently used to quantify proanthocyanidin (PAC) content in cranberry products. However, this method suffers from issues of accuracy and precision in the analysis and comparison of PAC levels across a broad range of cranberry products. Current use of procyanidin A2 as a standard leads to an underestimation of PACs content in certain cranberry products, especially those containing higher molecular weight PACs. METHODS AND RESULTS:To begin to address the issue of accuracy, a method for the production of a cranberry PAC standard, derived from an extraction of cranberry (c-PAC) press cake, was developed and evaluated. Use of the c-PAC standard to quantify PAC content in cranberry samples resulted in values that were 2.2 times higher than those determined by procyanidin A2. Increased accuracy is critical for estimating PAC content in relationship to research on authenticity, efficacy, and bioactivity, especially in designing clinical trials for determination of putative health benefits.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.7068 mL	28.5339 mL	57.0679 mL
5 mM	1.1414 mL	5.7068 mL	11.4136 mL
10 mM	0.5707 mL	2.8534 mL	5.7068 mL
50 mM	0.1141 mL	0.5707 mL	1.1414 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Comparison of isolated cranberry (Vaccinium macrocarpon Ait.) proanthocyanidins to catechin and procyanidins A2 and B2 for use as standards in the 4-(dimethylamino)cinnamaldehyde assay. J Agric Food Chem. 2012 May 9;60 (18):4578-85.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481