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产品名称: 3,3',4,4'-四甲酸二苯甲酮
 产品别名: Benzophenonetetracarboxylic acid; 二苯甲酮四羧酸;
 3,3',4,4'-Benzophenonetetracarboxylic acid

生物活性:				
Description	Benzophenonetetracarboxylic acid (3,3',4,4'-Benzophenonetetracarboxylic acid) is particularly useful in the preparation of high performance polyimides and also useful as curing agents for epoxy resins[1].			
In Vitro	The kinetics of the photooxidation of aromatic amino acids histidine (His), tyrosine (Tyr), and tryptophan (Trp) by Benzophenonetetracarboxylic acid has been investigated in aqueous solutions using time-resolved laser flash photolysis and time-resolved chemically induced dynamic nuclear polarization. The pH dependence of quenching rate constants is measured within a large pH range. The chemical reactivities of free His, Trp, and Tyr and of their acetylated derivatives, N-AcHis, N-AcTyr, and N-AcTrp, toward Benzophenonetetracarboxylic acid triplets are compared to reveal the influence of amino group charge on the oxidation of aromatic amino acids. Thus, it has been established that the presence of charged amino group changes oxidation rates by a significant factor; i.e., His with a positively charged amino group quenches the Benzophenonetetracarboxylic acid triplets 5 times more effectively than N-AcHis and His with a neutral amino group. The efficiency of quenching reaction between the Benzophenonetetracarboxylic acid triplets and Tyr and Trp with a positively charged amino group is about 3 times as high as that of both Tyr and Trp with a neutral amino group, N-AcTyr and N-AcTrp[2].			
Solvent&Solubility	In Vitro: H ₂ O : 7.2 mg/mL (20.10 mM; Need ultrasonic)			
		Solvent	Mass	
		Concentration		
	Preparing		1 mg	5 mg
Stock Solutions		1 mM	2.7913 mL	13.9563 mL
		5 mM	0.5583 mL	2.7913 mL
		10 mM	0.2791 mL	1.3956 mL
*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液, 请分装保存, 避免反复冻融造成的产品失效。 储备液的保存方式和期限 -80°C, 6 months; -20°C, 1 month。-80°C 储存时, 请在 6 个月内使用, -20°C 储存时, 请在 1 个月内使用。				
References	[1]. Mengxian Ding, et al. Process for the preparation of 3,3',4,4'-biphenyltetracarboxylic acid and its derivatives. Jan. 14, 1992. US5081281A. [2]. Saprygina NN, et al. Effect of amino group charge on the photooxidation kinetics of aromatic amino acids. J Phys Chem A. 2014 Jan 16;118(2):339-49.			