



上海源叶生物科技有限公司
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产品名称: **Vitamin B2 Tetrabutryate; Riboflavin Tetrabutryate; 四丁酸核黄素酯**

CAS 号: **752-56-7**

产品货号: **S86417**

生物活性:

Description	Riboflavin Tetrabutryate 是具有抗氧化和脂质过氧化物去除活性的亲脂性黄素衍生物。				
In Vitro	Riboflavin Tetrabutryate inhibits oxygen uptake by lipid peroxidation. Riboflavin Tetrabutryate is suppressive against both NADPH-coupled and ascorbate-induced microsomal lipid peroxidation. Riboflavin Tetrabutryate seems to exhibit its antioxidative action at or after the hydrogen atom is abstracted as a free radical from an active methylene group of polyunsaturated fatty acids during the process of enzymic oxidation-reduction reaction[1]。				
In Vivo	Riboflavin Tetrabutryate might improve the metabolism of lipids in patients suffering from atherosclerosis, diabetes, fatty liver and so on through the inhibition of lipid peroxide, resulting in the decrease of the elevated serum lipid[1]. Feeding of Riboflavin Tetrabutryate results in an increase in the hepatic activity of 3-ketoacyl-CoA thiolase by 50% of the control level, while the activities of renal 3-ketoacyl-CoA thiolase and of hepatic and renal acyl-CoA synthetase and acyl-CoA dehydrogenase remain unaffected. The increase in hepatic 3-ketoacyl-CoA thiolase activity suggests that prolonged Riboflavin Tetrabutryate administration results in an increased beta-oxidation of fatty acid in the liver [2].				
Solvent&Solubility	细胞实验: DMSO 中的溶解度 : ≥ 100 mg/mL (152.27 mM; 吸湿的 DMSO 对产品的溶解度有显著影响, 请使用新开封的 DMSO) * "≥" means soluble, but saturation unknown				
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
		1 mM	1.5227 mL	7.6136 mL	15.2272 mL
		5 mM	0.3045 mL	1.5227 mL	3.0454 mL
		10 mM	0.1523 mL	0.7614 mL	1.5227 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, 2 years; -20°C, 1 year。-80°C 储存时, 请在 2 年内使用, -20°C 储存时, 请在 1 年内使用。				
参考文献	[1]. Tahara K, et al. Effect of riboflavin and riboflavin 2',3',4',5'-tetrabutryate on rat liver microsomal lipid peroxidation. J Nutr Sci Vitaminol (Tokyo). 1974;20(2):81-8. [2]. Okuno E, et al. Effect of chronic administration of riboflavin 2',3',4',5'-tetrabutryate on the hepatic enzymes of fatty acid oxidation in the rat. J Nutr Sci Vitaminol (Tokyo). 1983 Dec;29(6):637-42. [3]. Yagi K, et al. Studies on fatty acid esters of flavins. VI. Incorporation of riboflavin part of riboflavin tetrabutryate-2-14C into flavin nucleotides in the organs of rat. J Vitaminol (Kyoto). 1969 Jun 10;15(2):155-9.				

完整储备液配制表:

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, 2 years; -20°C, 1 year。-80°C 储存时, 请在 2 年内使用, -20°C 储存时, 请在 1 年内使用。



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可选溶剂	质量 溶剂体积 浓度	1 mg	5 mg	10 mg	25 mg
DMSO	1 mM	1.5227 mL	7.6136 mL	15.2272 mL	38.0680 mL
	5 mM	0.3045 mL	1.5227 mL	3.0454 mL	7.6136 mL
	10 mM	0.1523 mL	0.7614 mL	1.5227 mL	3.8068 mL
	15 mM	0.1015 mL	0.5076 mL	1.0151 mL	2.5379 mL
	20 mM	0.0761 mL	0.3807 mL	0.7614 mL	1.9034 mL
	25 mM	0.0609 mL	0.3045 mL	0.6091 mL	1.5227 mL
	30 mM	0.0508 mL	0.2538 mL	0.5076 mL	1.2689 mL
	40 mM	0.0381 mL	0.1903 mL	0.3807 mL	0.9517 mL
	50 mM	0.0305 mL	0.1523 mL	0.3045 mL	0.7614 mL
	60 mM	0.0254 mL	0.1269 mL	0.2538 mL	0.6345 mL
	80 mM	0.0190 mL	0.0952 mL	0.1903 mL	0.4758 mL
	100 mM	0.0152 mL	0.0761 mL	0.1523 mL	0.3807 mL

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