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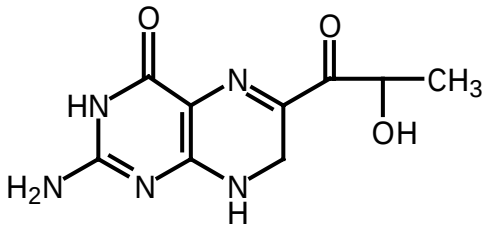
D A T A S H E E T

L-SEPIAPTERIN

Product No: 11.225

Synonyms: S(-)-2-Amino-7,8-dihydro-6-(2-hydroxy-1-oxopropyl)-4(1H)-pteridinone
CAS No. [17094-01-8]



$C_9H_{11}N_5O_3$ MW 237.2

Description	Yellow/orange powder		
Biochemical functions	Sepiapterin is intracellularly converted to tetrahydrobiopterin.		
Solubility	Sepiapterin is slightly soluble in water. Its solubility is 0.17 g per 100 g of water (22°C). It should only be dissolved in neutral or slightly acidic solutions. It is also soluble in DMSO (2.7 g/100 ml). Ultrasonication may be used to improve dissolution.		
Analytical methods	HPLC conditions:	column:	Waters Spherisorb S5-ODS1
		eluant:	10 mM Na_2HPO_4 pH 6 - Methanol, (4:1)
		flow rate:	1 ml/min
		wavelength:	254 nm
	TLC conditions:	stationary phase:	cellulose
		eluant:	water
	UV :	We do not perform UV analysis but the following data has been published: UV lambda max (log epsilon, 0.1 N HCl): 409 (3.79), 271 (3.87).	
Specifications	Purity: HPLC	> 98.0%	
	TLC	One yellow spot at 366 nm	
Stability	Sepiapterin is slightly hygroscopic and is very sensitive to light. It reacts with oxygen, especially in solution. Sepiapterin is less sensitive to oxygen than tetrahydrobiopterin. Dry at -20°C, it can be stored for several years.		
Storage	The powder should be stored at -20°C or colder. Solutions of sepiapterin should be made with oxygen free water and frozen as soon as possible. Sepiapterin can be transported without the use of dry ice. In tightly closed dark glass vials protected from light, it is stable at ambient temperatures for several weeks.		
Uses	Sepiapterin is often used in biological experiments. Exogenously administered sepiapterin is efficiently incorporated into cells where it is reduced to tetrahydrobiopterin. Sepiapterin is an important standard for analytical work. It is sold for laboratory use only.		
Safety information	Sepiapterin is known to be safe and there are no special precautions required in handling this product.		
References	New Tetrahydrobiopterin Dependant Systems. Seymour Kaufman, Annu. Rev. Nutr., 13, (1993), 267. Cellular uptake of sepiapterin and push-pull accumulation of tetrahydrobiopterin. Yamamoto K, et al., Mol Genet Metab (2008) 94, 410-416.		

Further data sheets can be found on our website www.schircks.ch