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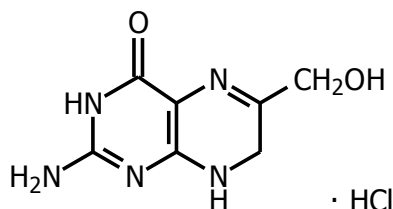
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DATA SHEET

6-Hydroxymethyl-7,8-dihydropterin hydrochloride

Product no. 11.421

Abbreviations: 6HMPH₂



C₇H₉N₅O₂·HCl

MW: 231.6

Description	Beige coloured powder		
Biochemistry	6-Hydroxymethyldihydropterin is the precursor for folate biosynthesis. Tetrahydrofolate(THF) biosynthesis requires the sequential operation of five enzymes from 6-hydroxymethyldihydropterin and p-aminobenzoic acid. In plants, the mitochondria plays a major role in this synthesis. Gene FolB giving dihydroneopterin aldolase catalyzes the conversion of 7,8-dihydroneopterin to 6-hydroxymethyl-7,8-dihydropterin and can use L-threo-dihydroneopterin and D-erythro-dihydroneopterin as substrates for the formation of 6-hydroxymethyldihydropterin.		
Solubility	6-Hydroxymethyl-7,8-dihydropterin hydrochloride is practically insoluble in water. It is slightly soluble in 0.01 N NaOH.		
Analytical methods	HPLC Conditions	column eluant flow rate wavelength solution	Waters Spherisorb S5-ODS 2 4.6 x 150 mm 10 mM Na ₂ HPO ₄ pH 6.0 : Methanol, 9:1 1 ml/min 215 nm 0.5 mg / 1 ml PB pH 7.0
Purity: HPLC	>95.0%		
Stability	6-Hydroxymethyl-7,8-dihydropterin hydrochloride is slightly hygroscopic. The powder stored at room temperature for 3 months is not very stable giving almost 8% degradation in this time. A 1 mM solution of 6HMPH ₂ in HPLC eluant is very unstable at RT with 14% degradation seen by HPLC analysis within 30 minutes and 35% within 90 minutes. Evacuation of the buffer solution decreases the rate of degradation slightly.		
Storage	This product is sold in ampoules to minimise degradation. Following opening of an ampoule keep the powder dry in vials at -20°C or colder. 6HMPH ₂ can be transported without the use of dry ice.		
Use	6HMPH ₂ is an important analytical standard. It is sold for laboratory use only.		
Safety	6HMPH ₂ is known to be safe and there are no special precautions required in handling this product.		

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