Dihydroxanthopterin

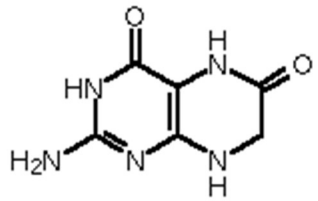
Product number 11.716 CAS number 1131-35-7

In a 4 l two neck round bottom flask with magnetic stir bar are poured 2 l of water and the flask is immersed in a water bath (60°C).
1.6 g of xanthopterin and 17.8 ml of 1 N NaOH are added. The xanthopterin is dissolved by stirring and by immersing the flask for a short time in an ultrasonic bath.
1.0 g of NaBH4 is added (wear safety glasses) and subsequently acetic acid (total about 3.8 g) is added with a pasteur pipette drop by drop. In the beginning about 3 drops per minute.
After about 20 minutes another 0.5 g of NaBH4 are added, a pH electrode is fixed and acetic acid is added until a pH of 6.0 is reached.
When the formation of hydrogen bubbles stops, you have to work fast, otherwise the dihydroxanthopterin is oxidized by oxygen and becomes dark.
A glass stopcock is added, the round bottom flask is evacuated and cooled in an ice/water bath for 15 minutes.
The precipitated dihydroxanthopterin is filtered through a sintered disc filter funnel and the filter cake is rinsed with 100 ml of cold water and dried in a vacuum desiccator over NaOH to give 1.3 g of dihydroxanthopterin.

Purity: 98.5% (HPLC)

Description: light brown powder

Solubility: 2.0 mg/100 g water (22 °C)



Dihydroxanthopterin

$C_6H_7N_5O_2$
181.15

C 39.78% H 3.89% N 38.66% O 17.66%
Product no. 11.716

Solubility 2.0 mg/100 g water (22 °C)

HPLC conditions:

Column	Whatman Partisil 10 SCX
Eluant	10 mM Na2HPO4, pH 3
Flow (ml/min)	1
Wavelength (nm)	254
Conc.	1 mg/ml buffer plus minimal ammonium hydroxide to dissolve