(6R,S)-5,6,7,8-tetrahydro-D-neopterin dihydrochloride

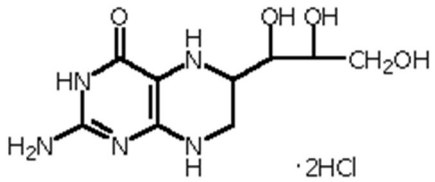
Product number 11.309 CAS number 25976-00-5

The equipment for hydrogenations is described in the chapter "General instructions for working with pteridines".

2 g of D-neopterin, 30 ml of water and 60 mg of PtO_2 are filled in the 250 ml three-necked round bottom flask of the hydrogenation equipment.
A dropping funnel with 2 ml of hydrochloric acid 32% and 8 ml of water is installed.
In order to remove all air, the equipment is twice evacuated and filled with nitrogen.
The equipment is twice evacuated and filled with hydrogen, and then the mixture is stirred vigorously for 23 hours.
The equipment is twice evacuated and filled with nitrogen. To determine whether the reaction is completed a sample is taken and examined by HPLC.
When the hydrogenation is completed, the equipment is twice evacuated and filled with hydrogen, and the mixture is again stirred vigorously. The diluted hydrochloric acid in the dropping funnel is added within 2 minutes, and subsequently the mixture is stirred vigorously for further 3 minutes.
The equipment is twice evacuated and filled with nitrogen.
The subsequent filtration must be done quickly, otherwise the platinum catalyzes the oxidation of the product with oxygen of the air!
The Pt is filtered out and the filtrate is evaporated to dryness in a reaction vessel with round bottom by means of a rotary evaporator.
The residue is dried in a vacuum desiccator over NaOH to give 2.2 g of (6R,S)-5,6,7,8-tetrahydro-D-neopterin dihydrochloride.

Purity: >99.5% (HPLC)

Description: off-white powder



(6R,S)-5,6,7,8-Tetrahydro-D-neopterin dihydrochloride

$C_9H_{15}N_5O_4 \cdot 2HCl$
330.17

C 32.74% H 5.19% Cl 21.48% N 21.21% O 19.38%

Product no. 11.309

HPLC

Sample:	1 mg/ml H_2O
Column:	Partisil 10 SCX, 250 mm x 4.6 mm
Eluant:	30 mM NaH_2PO_4 pH 3.0
Flow:	1.0 ml/min
Detection:	254 nm