Neopterin
Product No.'s 11.303, 11.325

**Description**
Yellow powder

**Biochemical functions**
Neopterin has two isomers. We sell both D- and L-neopterin. D-Neopterin is the natural form.
The determination of neopterin concentrations is a sensitive method of monitoring the activity of the cellular immune system because of the close association of the stimulation of T-lymphocytes, the release of interferon and the synthesis of neopterin.
The levels of neopterin are higher in patients with certain infections, with some tumours, with autoimmune diseases and in those rejecting transplants.
Dihydronopterin triphosphate is part of the synthesis pathway of tetrahydrobiopterin, an important cofactor in humans.

**Solubility**
Neopterin is practically insoluble in water. Its solubility is about 0.005 g per 100 g of water (22°C).
Concentrated solutions may be prepared using 0.05 M NaOH. Ultrasonication may be used to improve dissolution.

**Analytical methods**
**HPLC conditions:**
column: Waters Spherisorb S5-ODS1
eluant: 10 mM Na₂HPO₄, pH 6
flow rate: 1 ml/min
wavelength: 254 nm

**TLC conditions**
stationary phase: cellulose
eluant: water

**Specifications**
Purity: HPLC > 99.0%
TLC one blue fluorescent spot at 366 nm

**Stability**
Neopterin is light sensitive. Neopterin contains half a mole of water.

**Storage**
Keep the powder dry in amber vials at -20°C or colder. Neopterin can be transported without the use of dry ice. In tightly closed amber vials wrapped in aluminium foil, it is stable at ambient temperature for several months.

**Uses**
Neopterin is an important standard for analytical work. It can be used in the screening of blood donors for various diseases. It is sold for laboratory use only.

**Safety information**
Neopterin is known to be safe and there are no special precautions required in handling this product.

**References**

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

The information in this publication is based on our current knowledge and experience. It does not relieve users or processors from carrying out their own precautions and tests.