## **Translational Metabolic Laboratory**

PR 007774 CSF ANALYSIS OF PTERINS (NEOPTERIN, BIOPTERIN, SEPIAPTERIN) ANALYSIS

PAGE 1/2
VALID UNTIL: 01-01-2024

## **How to send samples?**

## Standardization of lumbar puncture

Time of lumbar puncture between 08:30 and 10:00 in the morning.

## Sending the sample

- One milliliter (1 ml) of CSF should be put in the special "pterin tube". This tube contains a fixative to stabilize the pterins and can be obtained upon (e-mail)-request from our laboratory. The tube contains 1 mg dithiotreitol and 33 mg trichloro-acetic acid and can also be prepared in a local laboratory.
- Gently mix the tube, fold it in aluminium foil to protect it against light and freeze the tube at -80°C.
- The CSF sample should be sent frozen (on dry ice) to our laboratory (see address above). A description of the clinical symptoms is appreciated.

Please note that this procedure excludes the possibility of analysis of the neurotransmitter metabolites analysis (HVA, 5-HIAA, MHPG) in CSF. A separate aliquot of CSF should be collected for the analysis of these parameters.

## **Address for sending material:**

Radboud University Medical Center Radboudumc Diagnostic Laboratory Route 815 Attn. TML, Neurochemistry, dr. MM Verbeek PO 9101 6500 HB NIJMEGEN The Netherlands

Contact information : phone: #31-24-3614567 fax: #31-24-3668754

e-mail: marcel.verbeek@radboudumc.nl

### Reference values

The laboratory has established age-related reference values:

Age	Neopterin (nM)	Biopterin (nM)	% Biopterin	Sepiapterin
0 – 1 year	1 – 20	18 – 67	64 – 97	N.D.
1 – 4 years	4 – 17	18 – 67	69 – 95	N.D.
4 – 15 years	2 – 14	10 – 42	52 – 95	N.D.
> 15 years	2 – 20	5 - 21	40 - 90	N.D.

N.D.: not detectable in normal CSF.

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Translational Metabolic Laborate			
PR 007774	CSF ANALYSIS OF PTERINS (NEOPTERIN,	PAGE 2/2	
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## **Analysis frequency**

Every three weeks.

## **Turn-over time**

Maximally 3.5 weeks.

<u>Costs</u> Please inquire.