

Reporting Title: Tetrahydrobiopterin/Neopterin**Performing Location:** Medical Neurogenetics, LLC**Specimen Requirements:**

Medical Neurogenetics collection kit (T657) required.
Each collection kit contains 5 microcentrifuge tubes.

COLLECTION PROTOCOL:

1) CSF should be collected from the first drop into the tubes in the numbered order. Fill each tube to the marked line with the required volumes

Tube 1: 0.5 mL

Tube 2: 1.0 mL

Tube 3: 1.0 mL (contains antioxidants necessary to protect the sample integrity)

Tube 4: 1.0 mL

Tube 5: 1.0 mL

- If sample's not blood contaminated, the tubes should be placed on dry ice at bedside
- If sample's are blood contaminated, the tubes should immediately be centrifuged (prior to freezing) and the clear CSF transferred to new similarly labeled tubes, then frozen
- Store samples at -80 until they can be shipped

2) Complete Medical Neurogenetics, LLC request form. Include test required, sample date and date of birth.

3) Label tubes with patient name and ID number, leaving the tube number viewable.

4) Place samples inside a specimen transport bag and the Medical Neurogenetics, LLC request form inside the pouch of the transport bag.

5) Ship samples frozen on dry ice.

Specimen Type	Temperature	Time	Special Container
CSF	Frozen		CSF KIT

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
Z2234	Neopterin	Alphanumeric	nmol/L	34146-1
Z2235	Tetrahydrobiopterin	Alphanumeric	nmol/L	Not Provided
Z2236	Interpretation	Alphanumeric		59462-2

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:

Referral

CPT Code Information:

82542

Reference Values:

Tetrahydrobiopterin/Neopterin Profile

Age	BH4	Neop
(years)	(nmol/L)	(nmol/L)
0 - 0.2	40 - 105	7 - 65
0.2 - 0.5	23 - 98	7 - 65
0.5 - 2.0	18 - 58	7 - 65
2.0 - 5.0	18 - 50	7 - 65
5.0 - 10	9 - 40	7 - 40
10 - 15	9 - 32	8 - 33
Adults	10 - 30	8 - 28

Note: If test results are consistent with the clinical presentation, please call our laboratory to discuss the case and/or submit a second sample for confirmatory testing.

An important consideration for false positive for false negative results is the improper labeling of the patient sample.