MAYO CLINIC LABORATORIES

Reporting Title: Neurotransmitter Profile 3
Performing Location: Medical Neurogenetics, LLC

Specimen Requirements:

Medical Neurogenetics collection kit (MCL Supply 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 same integrity)
Tube 4: 1.0 mL
Tube 5: 1.0 mL

-If samples not blood contaminated, the tubes should be placed on dry ice at bedside.
-If samples 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, marking the following three tests: Neurotransmitter Metabolites, Tetrahydrobiopterin and 5-Methyltetrahydrofolate. Also include sample date and date of birth.

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

4) Place samples inside the 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®
Z1726	5-Methyltetrahydrofolate **Also used by tests: F5MET**	Numeric	nmol/L	47547-5

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Result ID	Reporting Name	Type	Unit	LOINC®
Z1727	5-Hydroxyindoleacetic acid **Also used by tests: FNTM**	Numeric	nmol/L	47544-2
Z1728	Homovanillic acid **Also used by tests: FNTM**	Numeric	nmol/L	40846-8
Z1729	3-O-methyldopa **Also used by tests: FNTM**	Numeric	nmol/L	34596-7
Z1730	Neopterin **Also used by tests: FFTHB**	Numeric	nmol/L	34146-1
Z1731	Tetrahydrobiopterin **Also used by tests: FFTHB**	Numeric	nmol/L	Not Provided
Z1732	Interpretation **Also used by tests: FFTHB**	Numeric		Not Provided

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:
Referral

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
F5MET	5-Methyltetrahydrofolate			Yes	Yes (order F5M)
FNTM	Neurotransmitter Metabolites/Amines			Yes	Yes (order FNEU)
FFTHB	Tetrahydrobiopterin/Neopterin			Yes	Yes (order FFTEN)

CPT Code Information:

82542 - 5-Methyltetrahydrofolate
Â 82542 - Tetrahydrobiopterin/Neopterin
Â 82542, 83497, 83150 - Neurotransmitter Metabolites/Amines
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Reference Values:

5-Methyltetrahydrofolate

Age (years)	5MTHF (nmol/L)
0-0.2	40-240
0.2-0.5	40-240
0.5-2.0	40-187
2.0-5.0	40-150
10-15	40-128
Adults	40-120

Neurotransmitter Metabolites/Amines

Age (years)	5HIAA (nmol/L)	HVA (nmol/L)	3-O-MD (nmol/L)
0-0.2	208-1159	337-1299	<300
0.2-0.5	179-711	450-1132	<300
0.5-2.0	129-520	294-1115	<300
2.0-5.0	74-345	233-928	<150
5.0-10	66-338	218-852	<100
10-15	67-189	167-563	<100
Adults	67-140	145-324	<100

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10-15	67-189	167-563	<100
Adults	67-140	145-324	<100

Tetrahydrobiopterin/Neopterin Profile

Age (years)	BH4 (nmol/L)	Neop (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 inconsistent with the clinical presentation, please call our laboratory to discuss the case and/or submit a second sample for confirmatory testing.

DISCLAIMER required by the FDA for high complexity clinical laboratories: HPLC testing was developed and its performance characteristics determined by Medical Neurogenetics. These HPLC tests have not been cleared or approved by the U.S. FDA.