



# METHOXYTYRAMINE (Free), PLASMA

## Synonym(s):

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Lab Section Category	Clinical Biochemistry  Click here to find out more about the write-up (/clinical-departments-centers/pathology/pathology-handbook/lab-discipline-special-instructions/pages/clinical-biochemistry.aspx).
Specimen Required	3mL EDTA blood; keep cold with ice and send to lab immediately recommended collection: draw from fasting patient at supine position after 20-30min of rest
Method	Liquid Chromatography - Tandem Mass Spectrometry (LC-MS/MS)
Reference Interval/Value	all ages: 3-methoxytyramine (MTY) 0 - 0.11 nmol/L  Plasma 3-methoxytyramine reference interval (URL 97.5 <sup>th</sup> percentile value) is from Eisenhofer et.al 2012  Eur J Cancer 48:1739-1749; measurement assisted confirmation of disease and useful for head and neck paragangliomas.
Turnaround Time	average 7 days
Day(s) Test Set up	Wednesday

#### Remarks

Studies have suggested that age-specific / age-group specific reference intervals for plasma normetanephrine used in conjunction with metanephrine improved specificity and sensitivity for the diagnosis of phaechromocytoma. A curvilinear algorithm equation to calculate age-specific reference intervals for plasma normetanephrines was derived by Eisenhofer et.al (2013).

Age-group specific reference intervals (using the first age of each group) obtained from the curvilinear algorithm is reproduced here. Used together with plasma metanephrine URL of 0.45 nmol/L has demonstrated 93.6% sensitivity and 96% specificity

5-17yr: 0.54 nmol/L

18-29yr: 0.55 nmol/L

30-39yr: 0.60 nmol/L

40-49yr: 0.67 nmol/L

50-59yr: 0.80 nmol/L

>60yr: 0.99 nmol/L

Rao et.al 2017 Eur J Endocrinol 177:103-113 using LC-MS/MS in their study verified the use of age-specific reference intervals (NMET) in diagnosis. Additionally, the use of methoxytyramine (MTY) assists with positive confirmation.

#### Interferences

Subjects should abstain from caffeine, acetoaminophen, before testing. The following drugs: (on MET, NMET, MTY) isoproterenol, ephedrine, (on MTY) metamphetamine also interferes with the analysis technique.

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