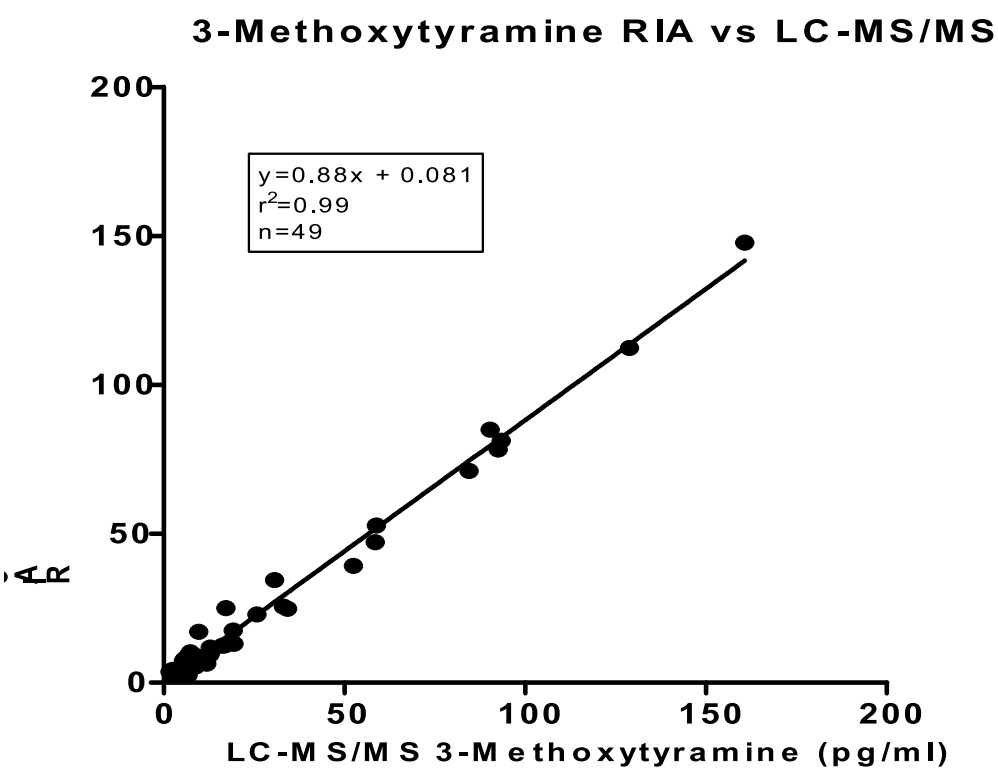
3-METHOXYTYRAMINE PLASMA
RIA FAST TRACK (3-MT RIA)

ADVANTAGES

- → New biomarker of phaeochromocytoma and paraganglioma tumours
- → The first commercial assay worldwide!
- → Speed and ease of use
- → 48 duplicate determinations or 96 single
- → Easy sample preparation (extraction)
- → No known interferences by medical drugs
- → High correlation with LC/MS-MS
- → Wide standard ranges, convenient measurement of pathological samples without predilution

COMPARISON LC-MS/MS:



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3-METHOXYTYRAMINE

ESSENTIAL INFORMATION

Cells derived form neuroendocrine tumours (e.g. pheochromcytoma) are known to produce catecholamines which are secreted episodically via vesicles into the bloodstream. But beside this a small portion of the catecholamines is metabolized inside the cells to the corresponding catecholamines metabolites – namely metanephrine, normetanephrine and 3-methoxytyramine (3-MT) – which are secreted at low levels continuously into the bloodstream.
3-methoxytyramine is a metabolite of the neurotransmitter Dopamine formed by the introduction of a methyl group to dopamine by the enzyme catechol-O-methyl transferase (COMT). The measurement of 3-MT allows the detection of dopamine-producing tumours: For example a substantial number of patients with head-and-neck paragangliomas (HNPGL) have biochemically active tumors and only display increased excretion of 3-methoxytyramine, but not of other catecholamines or their metabolites.The combined levels of free metanephrine/normetanephrine and free 3-MT in plasma indicate a higher number of biochemically active HNPGLs than the 24-h urinary excretion rates of these markers.
In addition 3-MT acts as a neuromodulator and can also induce behavioral effects involved in movement control in a dopamine-independent manner. Most of these effects are mediated by the trace amine associated receptor 1 (TAAR1) which in turn is involved in abnormal dopaminergic transmission, such as Parkinson's disease, dyskinesia and schizophrenia.

3-METHOXYTYRAMINE RIA

Radiommunoassay for the fast and quantitative determination of 3-MT in plasma.

Easy sample preparation. Acylation in acylation tubes. 100 tubes per kit. 6 standards (do not change from lot to lot), 2 controls, ready for use.

Time: sample preparation 2.5 h and RIA 1h, overnight.

EDTA/Heparin - plasma.

KIT DETAILS RIA – TECHNICAL DATA

CAT NO.	PARAMETER	SAMPLE SIZE	STANDARDS	SENSIVITY	FORMAT
BA R-8800	3-MT Plasma RIA Fast Track	750 µl	0/2 - 150 pg/ml	1.1 pg/ml	100 tubes