

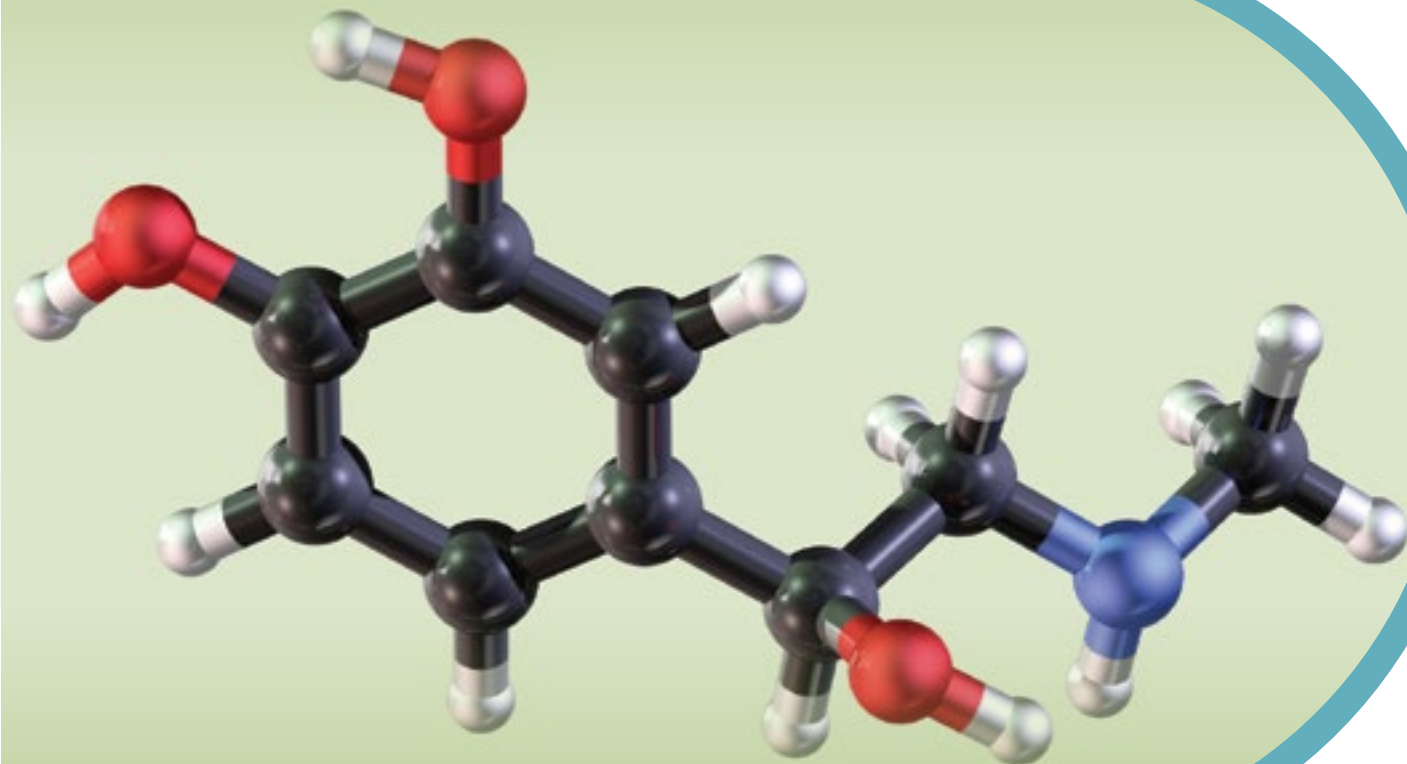
Biogenic Amine reference materials

Epinephrine (adrenaline), norepinephrine (noradrenaline) and dopamine are a group of biogenic amines known as catecholamines.

They are produced mainly by the chromaffin cells in the medulla of the adrenal gland. Under normal circumstances catecholamines cause general physiological changes that prepare the body for fight-or-flight. However, significantly raised levels of catecholamines and their primary metabolites 'metanephrines' (metanephrine, normetanephrine, and 3-methoxytyramine) are used diagnostically as markers for the presence of a pheochromocytoma, a neuroendocrine tumor of the adrenal medulla.

Vanillylmandelic acid (VMA) and homovanillic acid (HVA) are end products of catecholamine metabolism. Increased urinary excretion of VMA and HVA is a diagnostic marker for neuroblastoma, one of the most common solid cancers in early childhood.

The biogenic amine, serotonin, is a neurotransmitter in the central nervous system. A number of disorders are associated with pathological changes in serotonin concentrations. Serotonin deficiency is related to depression, schizophrenia and Parkinson's disease. Serotonin excess on the other hand is attributed to carcinoid tumours. The determination of serotonin or its metabolite 5-hydroxyindoleacetic acid (5-HIAA) is a standard diagnostic test when carcinoid syndrome is suspected.



Reference materials

Product code	Description	Pack size
Epinephrines and metabolites		
TRC-E588585	(±)-Epinephrine	1 g
TRC-E588580	(R)-Epinephrine	100 mg
TRC-E588582	(±)-Epinephrine-D3	2.5 mg
TRC-E588583	(R)-Epinephrine-D3	5 mg
CERE-077	(±)-Epinephrine-D6, 100 µg/ml	1 ml
TRC-N674500	(±)-Norepinephrine Hydrochloride	100 mg
TRC-N674502	(±)-Norepinephrine-D6 Hydrochloride	1 mg
CERN-069	(±)-Norepinephrine-D6 HCl, 100 µg/ml (as free base)	1 ml
TRC-D453000	(±)-3,4-Dihydroxymandelic Acid (DOMA)	1 g
TRC-H946330	(±)-Vanilmandelic Acid (VMA)	1 g
TRC-H946332	(±)-Vanilmandelic Acid-D3	10 mg

Metanephrines		
TRC-M258760	(±)-Metanephrine Hydrochloride	50 mg
TRC-M258762	(±)-Metanephrine-D3 Hydrochloride	1 mg
CERM-148	(±)-Metanephrine-D3 Hydrochloride, 100 µg/ml (as free base)	1 ml
TRC-N721500	(±)-Normetanephrine Hydrochloride	50 mg
TRC-N721502	(±)-Normetanephrine-D3 Hydrochloride	1 mg
CERN-068	(±)-Normetanephrine-D3 Hydrochloride, 100 µg/ml (as free base)	1 ml

Dopamine and metabolites		
TRC-D533780	Dopamine Hydrochloride	1 g
CERD-081	Dopamine Hydrochloride, 1.0 mg/ml (as free base)	1 ml
TRC-D533782	Dopamine-D4 Hydrochloride	1 mg
CERD-072	Dopamine-D4 Hydrochloride, 100 µg/ml (as free base)	1 ml
TRC-H669500	Homovanillic Acid (HVA)	1 g
TRC-H669502	Homovanillic Acid-D3	1 mg
CERH-092	Homovanillic Acid-D5, 100 µg/ml	1 ml
TRC-H669503	Homovanillic Acid-13C6	1 mg
TRC-H669505	Homovanillic Acid Sulfate Sodium Salt	5 mg
TRC-H669507	Homovanillic Acid Sulfate Sodium Salt-D3	1 mg
TRC-D454252	3,4-Dihydroxyphenylacetic Acid-13C,18O2	1 mg

Serotonin and 5-Hydroxyindoleacetic acid (5-HIAA)		
TRC-S274980	Serotonin Hydrochloride	1 g
TRC-S274982	Serotonin-D4	2.5 mg
CERH-093	5-Hydroxyindoleacetic acid-D5, 100 µg/ml	1 ml

Product code	Description	Pack size
Catecholamine Mixes		
CERC-109	Catecholamine Mix 1 (Epinephrines), 1.0 mg/ml (as free base) of each component ((±)-Epinephrine Hydrochloride and (±)-Norepinephrine Hydrochloride)	1 mg
CERC-110	Catecholamine Mix 2 (Metanephrines) 1.0 mg/ml (as free base) of each component ((±)-Metanephrine Hydrochloride and (±)-Normetanephrine Hydrochloride)	1 mg
CERC-111	Catecholamine Metabolites Mix, 1.0 mg/ml of each component (5-Hydroxyindoleacetic acid (5-HIAA), Homovanillic acid (HVA), and (±)-Vanilmandelic acid (VMA))	1 mg

Matrix materials

Product code	Description	Pack size
Calibrators (lyophilised)		
<i>Serotonin</i>		
REC-6013	Plasma Calibrator for Serotonin	1 x 5 ml
REC-7013	Urine Calibrator for Serotonin	5 x 8 ml
<i>Dopamine, epinephrine, norepinephrine</i>		
REC-1013	Plasma Calibrator for Catecholamines	5 x 5 ml
REC-2013	Urine Calibrator for Catecholamines	5 x 8 ml
<i>Metanephrine, 3-methoxytyramine, normetanephrine</i>		
REC-4013	Urine Calibrator for Metanephrines	5 x 8 ml
<i>Vanillylmandelic acid (VMA), homovanillic acid (HVA), 5-hydroxyindoleacetic acid (5-HIAA)</i>		
REC-3013	Urine Calibrator for VMA, HVA, 5-HIAA	5 x 5 ml
Controls (lyophilised)		
<i>Dopamine, epinephrine, norepinephrine, serotonin</i>		
REC-8810	Plasma Control for Biogenic Amines, Level I	10 x 5 ml
REC-8811	Plasma Control for Biogenic Amines, Level II	10 x 5 ml
REC-8809	Plasma Control for Biogenic Amines, Level I, II	2 x 5 x 5 ml
<i>Dopamine, epinephrine, homovanillic acid (HVA), 5-hydroxyindoleacetic acid (5-HIAA), hydroxyproline, metanephrine, 3-methoxytyramine, norepinephrine, normetanephrine, serotonin, vanillylmandelic acid (VMA)</i>		
REC-8820	Urine Control for Biogenic Amines, Level I	10 x 8 ml
REC-8821	Urine Control for Biogenic Amines, Level II	10 x 8 ml
REC-8822	Urine Control for Biogenic Amines, Level I, II	2 x 5 x 8 ml

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