

# TEST REPORT

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Beaverton, OR 97008  
Phone: 503-466-2445 Fax: 503-466-1636



# D2021 03 17 876 U

Ordering Provider:  
Getuwell

Samples Received  
03/17/2021

Report Date  
03/18/2021

Samples Collected  
Urine - 03/15/21 05:30  
Urine - 03/15/21 07:30  
Urine - 03/15/21 18:00  
Urine - 03/15/21 22:00

Patient Name: Neurotransmitters  
Patient Phone Number: 555 555 5555

<b>Gender</b> Male	<b>Height</b> 5 ft 11 in	<b>Waist</b> 30 in
<b>DOB</b> 5/17/1997 (23 yrs)	<b>Weight</b> 160 lb	<b>BMI</b> 22.3

TEST NAME	RESULTS   03/15/21	RANGE
<b>Urinary Inhibitory Neurotransmitters</b>		
Tryptophan	14082 H	2633-12688 µg/g Cr (Optimal 3970-8450)
Serotonin	72.6	47.6-140.3 µg/g Cr (Optimal 61.0-103.2)
5-HIAA	3857	2205-11816 µg/g Cr (Optimal 2988-5850)
GABA	341	167-463 µg/g Cr (Optimal 193-367)
Glycine	56	41-295 mg/g Cr (Optimal 61-159)
Taurine	4.2 L	7.1-293.1 mg/g Cr (24.5-134.1)
<b>Urinary Excitatory Neurotransmitters</b>		
Glutamate	1436	1213-4246 µg/g Cr (Optimal 1515-2710)
Glutamine	38	27-106 mg/g Cr (Optimal 37-71)
Histidine	63.8	10.8-98.9 mg/g Cr (Optimal 19.7-58.4)
Histamine	25.4	3.6-44.3 µg/g Cr (Optimal 5.2-15.3)
N-Methylhistamine	285 H	59-195 µg/g Cr (Optimal 79-140)
PEA	4.3	3.6-38.8 µg/g Cr (Optimal 5.3-16.1)
Tyrosine	5240	3128-15548 µg/g Cr (Optimal 4790-10278)
Tyramine	353	187-910 µg/g Cr (Optimal 279-588)
Dopamine	132	103-282 µg/g Cr (Optimal 144-240)
DOPAC	658	495-2456 µg/g Cr (Optimal 658-1449)
HVA	6122	3025-9654 µg/g Cr (Optimal 3737-7048)

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3/18/2021 9:12:22 AM

The above results and comments are for informational purposes only and are not to be construed as medical advice. Please consult your healthcare practitioner for diagnosis and treatment.

*David T. Zava*

David T. Zava, Ph.D.  
Laboratory Director

*Alison McAllister, ND*

Alison McAllister, ND.  
(Ordering Provider unless otherwise specified on page 1)

TEST NAME	RESULTS   03/15/21	RANGE
<b>Urinary Excitatory Neurotransmitters</b>		
Norepinephrine (pooled)	21.8	10.0-35.7 µg/g Cr (Optimal 15.0-28.1)
Normetanephrine	18.1	13.4-44.8 µg/g Cr (Optimal 17.9-31.7)
Epinephrine (pooled)	3.3	0.8-6.2 µg/g Cr (Optimal 1.4-4.2)
Ratio: Norepi/Epi	6.6	2.9-25.2 (Optimal 5.2-13.7)
VMA	2849	1996-5939 µg/g Cr (Optimal 2580-4766)
<b>Urinary Inflammatory Markers</b>		
Kynurenine	1462	108-1641 µg/g Cr (Optimal 257-960)
Kynurenic Acid	916	437-1719 µg/g Cr (Optimal 639-1200)
3-Hydroxykynurenine	1227 H	80-822 µg/g Cr (Optimal 147-467)
Xanthurenic Acid	1308	450-2175 µg/g Cr (694-1510)
<b>Urinary Creatinine</b>		
Creatinine (pooled)	0.92	0.3-2.0 mg/mL
Creatinine	0.34	0.3-2.0 mg/mL (1st morning)
Creatinine	1.54	0.3-2.0 mg/mL (2nd morning)
Creatinine	0.56	0.3-2.0 mg/mL (Evening)
Creatinine	1.24	0.3-2.0 mg/mL (Night)

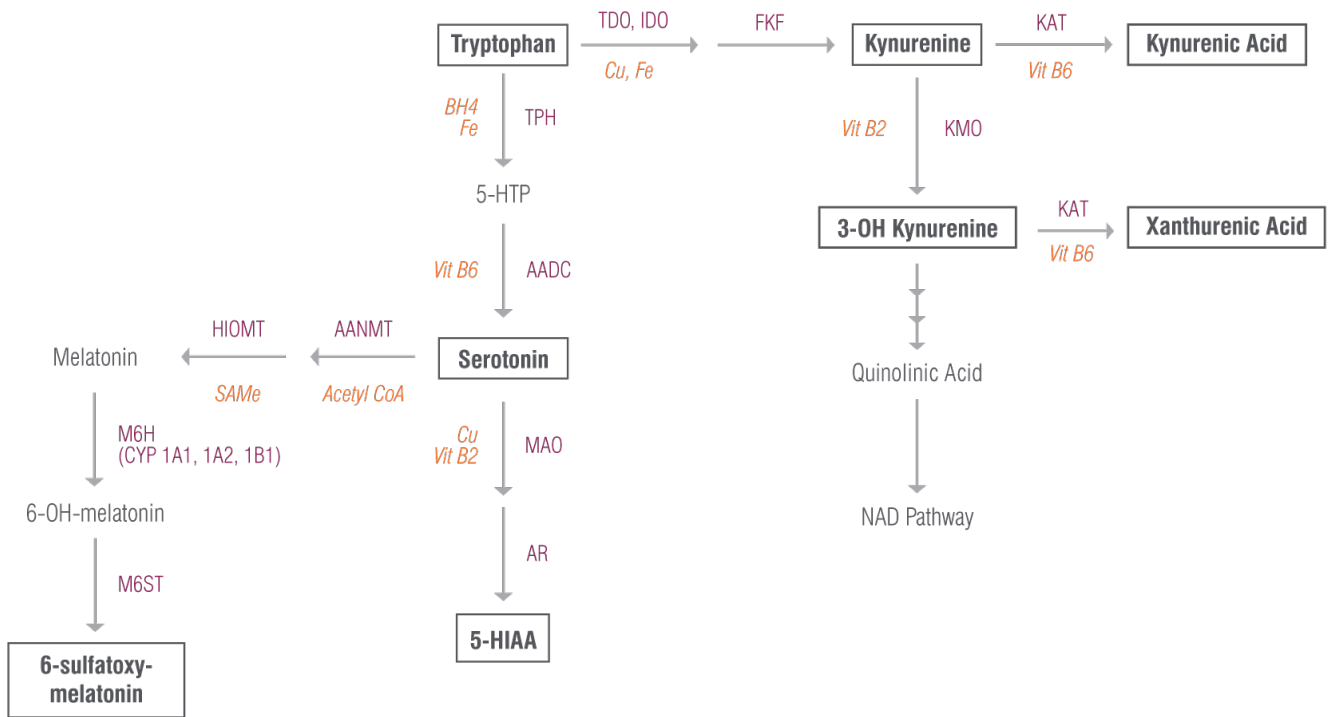
<dl = Less than the detectable limit of the lab. N/A = Not applicable; 1 or more values used in this calculation is less than the detectable limit. H = High. L = Low.

**Therapies**

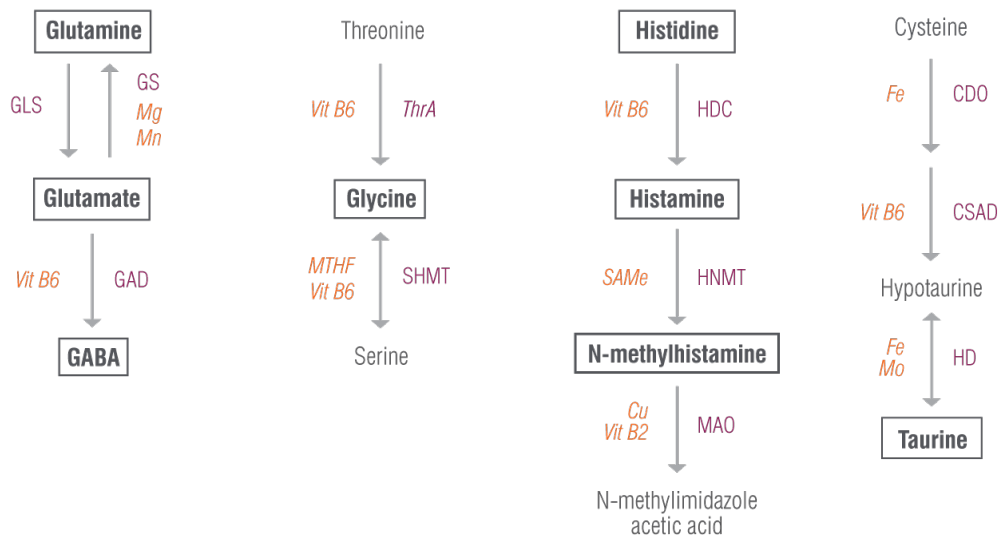
BID topical Clobex (clobetasol propionate) (Pharmaceutical) (7 Hours Last Used)

# Neurotransmitter Cascades

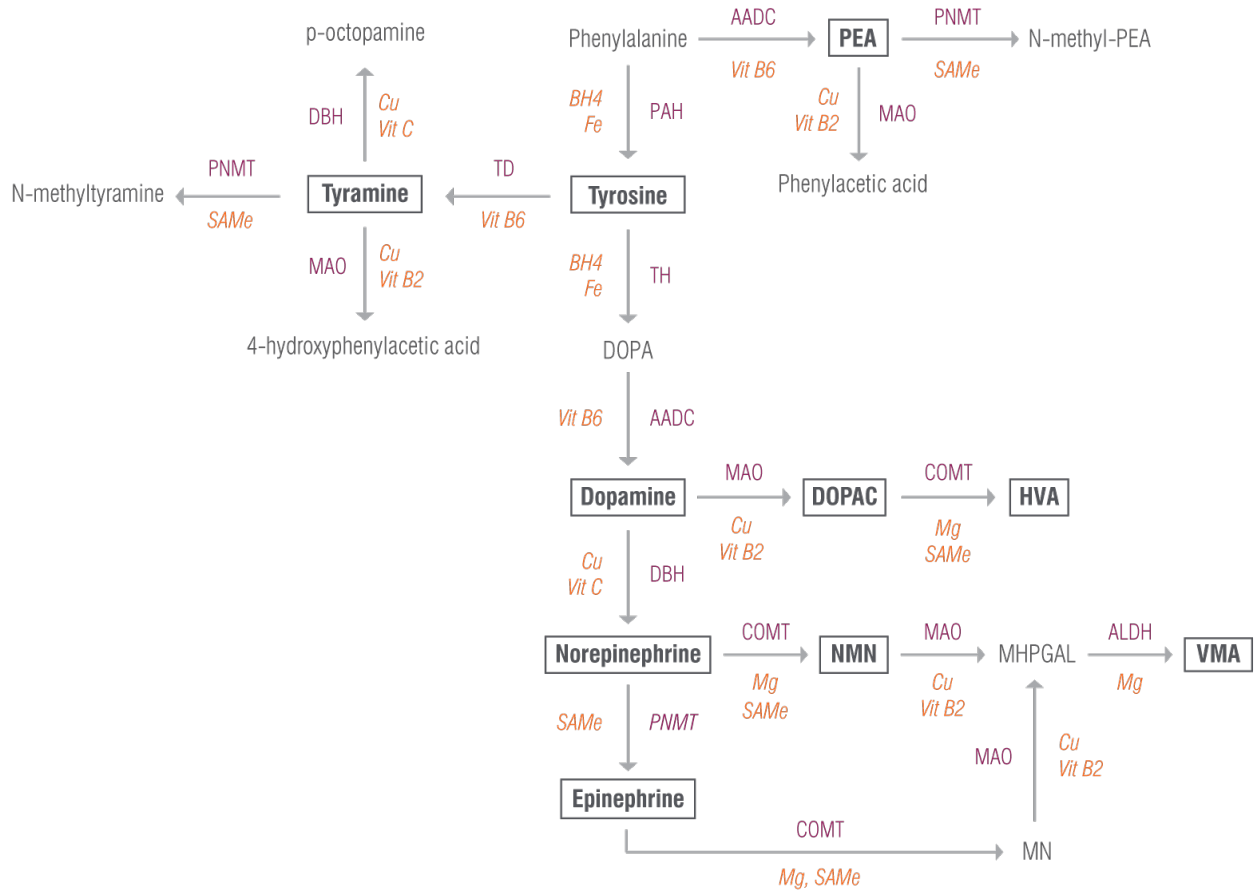
## Tryptophan & Metabolites



## Glutamate/GABA, Glycine, Histamine & Taurine



## Catecholamines & Metabolites



## Abbreviations & Key

Neurotransmitters  
& Metabolites:

<b>HVA</b>	homovanillic acid
<b>NMN</b>	normetanephrine
<b>PEA</b>	phenethylamine
<b>VMA</b>	vanillylmandelic acid
<b>5-HIAA</b>	5-hydroxyindole 3-acetic acid

Cofactors:

<b>BH4</b>	tetrahydrobiopterin
<b>Cu</b>	copper
<b>Fe</b>	iron
<b>Mg</b>	magnesium
<b>Mn</b>	manganese
<b>Mo</b>	molybdenum
<b>MTHF</b>	methyltetrahydrofolate
<b>SAmE</b>	S-adenosyl methionine

Enzymes:

<b>AADC</b>	aromatic L-amino acid decarboxylase
<b>AANMT</b>	arylalkylamine N-methyltransferase
<b>ALDH</b>	aldehyde dehydrogenase
<b>AR</b>	aldehyde reductase
<b>CDO</b>	cysteine dioxygenase
<b>COMT</b>	catechol-O-methyltransferase

<b>CSAD</b>	cysteinesulfinic acid decarboxylase
<b>DBH</b>	dopamine beta hydroxylase
<b>FKF</b>	N-Formyl kynurenine formamidase
<b>GAD</b>	glutamate decarboxylase
<b>GLS</b>	glutaminase
<b>GS</b>	glutamine synthetase
<b>HD</b>	hypotaurine dehydrogenase
<b>HDC</b>	histidine decarboxylase
<b>HIOMT</b>	hydroxyindole-O-methyltransferase
<b>HNMT</b>	histamine N-methyltransferase
<b>IDO</b>	indoleamine 2,3-dioxygenase
<b>KAT</b>	kynurenine aminotransferase
<b>KMO</b>	kynurenine hydroxylase/monooxygenase
<b>MAO</b>	monoamine oxidase
<b>M6H</b>	melatonin 6 hydroxylase
<b>M6ST</b>	melatonin 6 sulfotransferase
<b>PAH</b>	phenylalanine hydroxylase
<b>PNMT</b>	phenylethanolamine N-methyltransferase
<b>SHMT</b>	serine hydroxymethyltransferase
<b>TD</b>	tyrosine decarboxylase
<b>TDO</b>	tryptophan 2,3-dioxygenase
<b>TH</b>	tyrosine hydroxylase
<b>ThrA</b>	threonine aldolase
<b>TPH</b>	tryptophan hydroxylase