

Serotonin ELISA Kit ab133053

★★★★☆ 4 Abreviews 28 References 3 Images

Overview

Product name	Serotonin ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	346.1 ng/ml	20			4.2%
	53.8 ng/ml	20			5.8%
	13.5 ng/ml	20			11%
	Inter-assay				
	Sample	n	Mean	SD	CV%
Sample type	Urine, Serum, Plasma, Platelets				
Assay type	Competitive				
Sensitivity	0.293 ng/ml				
Range	0.49 ng/ml - 500 ng/ml				
Recovery	Sample specific recovery				
	Sample type	Average %		Range	
	Urine	101		5ng/ml - 100ng/ml	
	Serum	91		5ng/ml - 100ng/ml	
	Platelets	107		5ng/ml - 100ng/ml	

Sample type	Average %	Range
Cit plasma	95	5ng/ml - 100ng/ml

Assay time

3h 00m

Assay duration

Multiple steps standard assay

Species reactivity

Reacts with: Species independent

Product overview

Serotonin ELISA kit is a competitive ELISA kit designed for the accurate quantitative measurement of Serotonin in Human Serum, Platelets, Plasma and Urine.

A goat anti-rabbit IgG antibody has been precoated onto 96-well plates. Standards or test samples are added to the wells, along with an alkaline phosphatase (AP) conjugated- Serotonin antigen and a polyclonal rabbit antibody specific to Serotonin. After incubation the excess reagents are washed away. pNpp substrate is added and after a short incubation the enzyme reaction is stopped and the yellow color generated is read at 405 nm. The intensity of the yellow coloration is inversely proportional to the amount of Serotonin captured in the plate.

Notes

Serotonin (5-hydroxytryptamine, 5-HT) is a monoamine found in the central nervous system, gastrointestinal tract, and blood with broad physiological functions as a neurotransmitter, in gastric motility, hemostasis, and cardiovascular integrity. Defects in serotonin signaling have been linked to a large number of complex behavioral disorders in humans, including anxiety and depression, autism, and eating disorders, and to neurodegenerative disorders such as Parkinson's. Platelets serve as the major reservoir of serotonin in the bloodstream. When activated, platelets release serotonin into the bloodstream where it acts as a powerful vasoconstrictor. Treatment with Selective Serotonin Uptake Inhibitors (SSRIs) dramatically reduces platelet serotonin concentrations, and altered levels of serotonin in the circulatory system are implicated in such diverse conditions such as asthma, liver cirrhosis and carcinoid tumors.

Cross reactivities:

Compound	Cross Reactivity
N-Acetyl Serotonin	17%
5-Hydroxy-L-tryptophan	0.4%
Tryptamine	0.1%
5-Hydroxyindoleacetic acid	0.03%
Melatonin	0.01%
Tyramine	<0.004%
Tryptophan	<0.004%

Platform

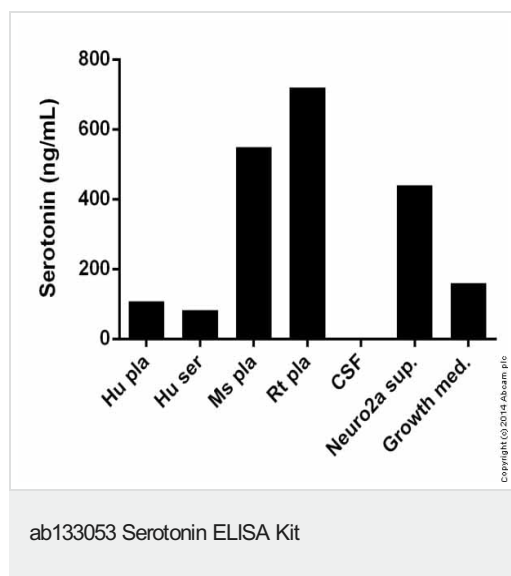
Microplate

Properties

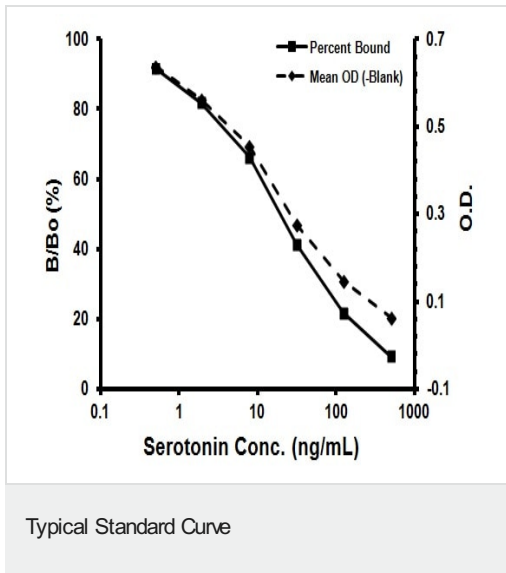
Storage instructions

Store at -20°C. Please refer to protocols.

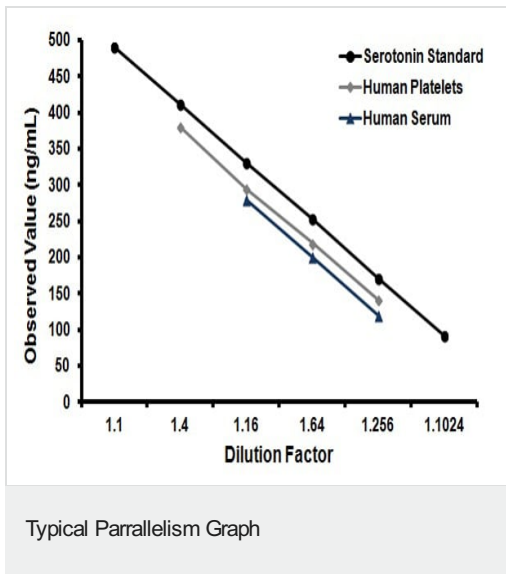
Components	1 x 96 tests
20X Wash Buffer Concentrate	1 x 27ml
Assay Buffer	1 x 27ml
Goat anti-rabbit IgG Microplate (12 x 8 wells)	1 unit
Plate Sealer	2 units
pNpp Substrate	1 x 20ml
Serotonin Alkaline Phosphatase Conjugate	2 x 150ng
Serotonin Antibody	2 vials
Serotonin Standard	2 x 250ng
Stop Solution	1 x 5ml

Images

Serotonin measured (averages of undil., 1:3, 1:9 & 1:27) in biological fluids (Neuro2a an Growth med. averaged from 1:2 and 1:4) showing quantity (ng) per mL of tested sample.



Representative Standard Curve using ab133053.



Dose-response curves from Human platelets and Human serum diluted into assay buffer were compared to the Serotonin standard curve. The parallel response indicates the standard effectively mimics the native protein.

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