

# Melatonin ELISA Kit

**Competitive ELISA kit optimized for quantifying melatonin at elevated concentrations in biological samples and food products. This kit delivers reliable results in just 2 hours with excellent specificity and minimal cross-reactivity.**

Melatonin (N-acetyl-5-methoxytryptamine) is produced in the pineal gland and is a major component of the regulation of the circadian rhythm. Melatonin is produced from tryptophan through a number of hydroxylation and methylation steps. It is metabolized in the liver, and excreted in urine as 6-hydroxymelatonin and 6-sulfatoxymelatonin. Melatonin and metabolites of melatonin, have demonstrated antioxidant and free radical scavenging potential. There is also evidence that they play a role in the regulation of reactive oxygen protein pathways. Published research shows a possible correlation to melatonin levels and the prevalence of certain cancers. Saliva can be used to measure melatonin levels. Saliva, compared to serum or plasma, is relatively easy to obtain and does not contain many of the interfering substances present in serum and plasma. Melatonin in saliva is representative of the levels circulating throughout the body, although the exact proportion is still not fully quantified with published values ranging from 20-50 % of serum values. New areas of research have grown around studying melatonin and the effect on libido, luteinizing hormone (LH), follicle-stimulating hormone (FSH), and other hormone pathways. The role in cancer, sleep cycle, aging, and other areas are also growing in interest, with particular focus on melatonin receptors and the bioavailability of circulating melatonin with the increased use of melatonin as a dietary supplement.

Citations: 14

[View Online »](#)

## Ordering Information

[Order Online »](#)

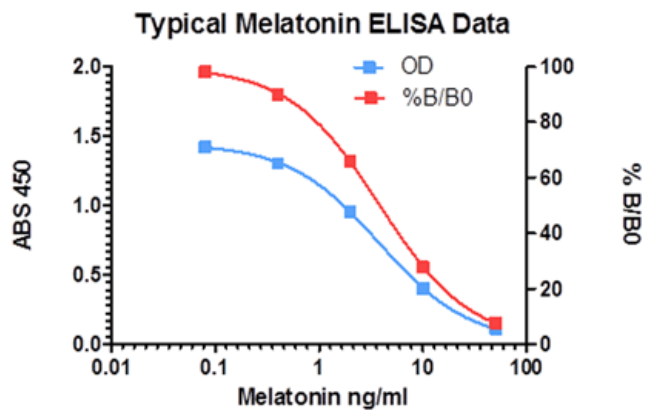
ENZ-KIT150-0001

96 wells

## Manuals, SDS & CofA

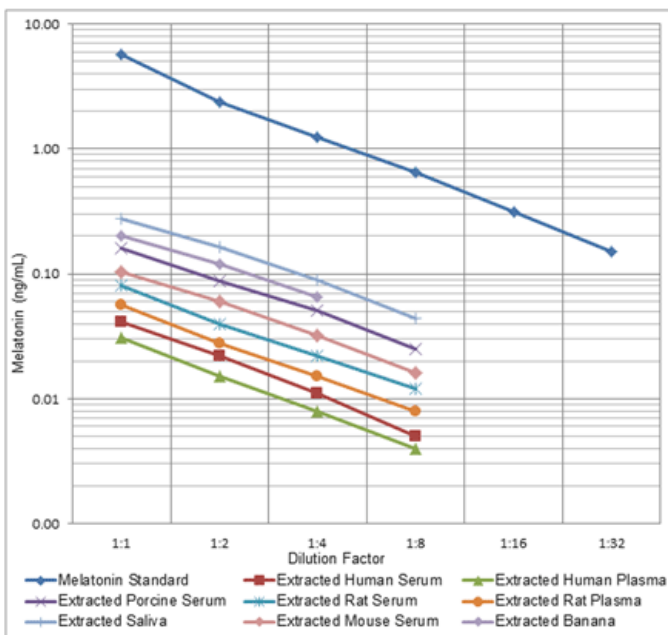
[View Online »](#)

- Melatonin quantification in highly-concentrated samples
- Broad dynamic range suitable for a large variety of samples
- High throughput format with results in 2 hours for up to 40 samples in duplicate
- Validated for a variety of sample matrices including fruit homogenates



Data from Fruit Tested		
Sample	ng / gram	Published Results*
Banana	0.6 ng / gram	0.5 ng / gram
Red Plum	16 ng / gram	5 – 20 ng / gram

\*Results for typical values for fruit were obtained from data published in Hattori, et al. 1995, Dubbels, et al., 1995 and Burkhardt et al., 2001.



# Handling & Storage

Handling	All components of this kit, except the standard and antibody, can be stored at +4°C. The standard and antibody must be stored at -20°C.
Long Term Storage	-20°C
Shipping	Dry Ice

## Regulatory Status

RUO - Research Use Only

## Product Details

Alternative Name	N-acetyl-5-methoxytryptamine
Application	Colorimetric detection, ELISA
Application Notes	For the quantitative determination of elevated melatonin levels in a variety of sample types.
Assay Time	2 hours
Compatibility	This product is compatible with all conventional absorbance plate readers including Enzo's <a href="#">Absorbance 96 Plate Reader</a> .
Contents	Goat anti-mouse IgG Microtiter Plate, Assay Buffer 10, Standard, Wash Buffer Concentrate, Antibody, Tracer, Conjugate, TMB Substrate, and Stop Solution.
Sensitivity	0.162 ng/ml (0.08-50 ng/ml).
Species Reactivity	Species independent
Wavelength	450 nm

Last modified: May 29, 2024



ENZO LIFE SCIENCES,  
INC.  
Phone: 800.942.0430  
[info-usa@enzolifesciences.com](mailto:info-usa@enzolifesciences.com)

European Sales Office  
ENZO LIFE SCIENCES  
(ELS) AG  
Phone: +41 61 926 8989  
[info-eu@enzolifesciences.com](mailto:info-eu@enzolifesciences.com)

Belgium, The Netherlands  
& Luxembourg  
Phone: +32 3 466 0420  
[info-be@enzolifesciences.com](mailto:info-be@enzolifesciences.com)

France  
Phone: +33 472 440 655  
[info-fr@enzolifesciences.com](mailto:info-fr@enzolifesciences.com)

Germany  
Phone: +49 7621 5500 526  
[info-de@enzolifesciences.com](mailto:info-de@enzolifesciences.com)

UK & Ireland  
Phone (UK customers):  
0845 601 1488  
Phone: +44 1392 825900  
[info-uk@enzolifesciences.com](mailto:info-uk@enzolifesciences.com)