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.

- 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

Citations: 14 View Online »

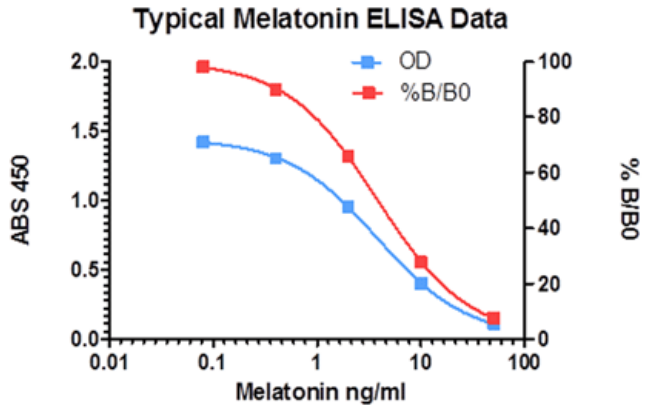
Ordering Information

Order Online »

ENZ-KIT150-0001	96 wells

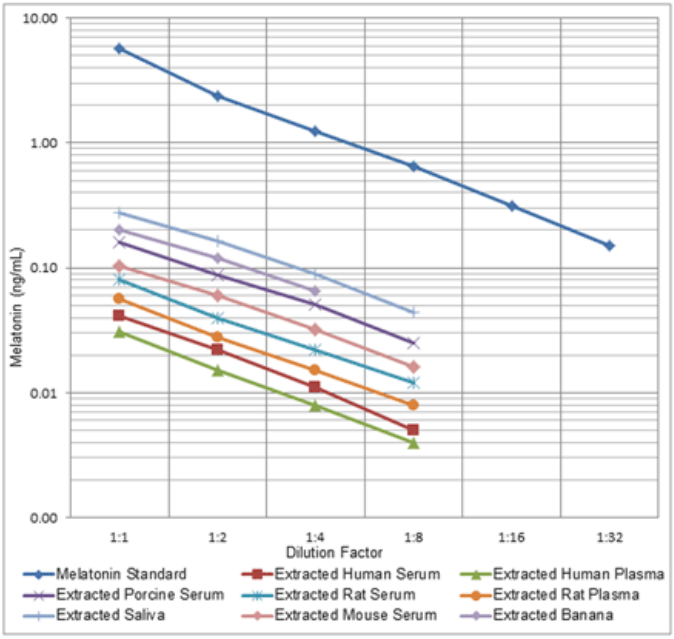
Manuals, SDS & CofA

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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 **Absorbance 96 Plate Reader**.
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

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