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Datasheet for KOA0887

DNA Damage (8-OHdG) ELISA Kit

Overview

Description:	DNA Damage AccuSignal ELISA Kit - KOA0887
Item No.:	KOA0887
Size:	1 Kit
Applications:	ELISA
Reactivity:	Broad
Range:	0.94 ng/ml - 60 ng/ml

Product Details

Background:	8-hydroxy-2-deoxy Guanosine (8-OHdG) is produced by the oxidative damage of DNA by reactive oxygen and nitrogen species and serves as an established marker of oxidative stress. Hydroxylation of guanosine occurs in response to both normal metabolic processes and a variety of environmental factors (i.e., anything that increases reactive oxygen and nitrogen species). Increased levels of 8-OHdG are associated with the aging process as well as with a number of pathological conditions including cancer, diabetes, and hypertension. In complex samples such as plasma, cell lysates, and tissues, 8-OHdG can exist as either the free nucleoside or incorporated in DNA. Once the blood enters the kidney, free 8-OHdG is readily filtered into the urine, while larger DNA fragments remain in the bloodstream. Because of the complexity of plasma samples, urine is a more suitable matrix for the measurement of free 8-OHdG than plasma. Urinary levels of 8-OHdG range between 2.7-13 ng/mg creatine, while plasma levels of free 8-OHdG have been reported to be between 4-21 pg/ml as determined by LC-MS.
Synonyms:	8-OH-dG ELISA Kit, 8OHG ELISA Kit, 80G ELISA Kit, 8 hydroxyguanine ELISA Kit, DNA Damage ELISA Kit, 8OHdG ELISA Kit, 8-ohdg ELISA Kit, DNA Damage Enzyme-Linked Immunosorbent Assay, 8-OHdG ELISA Kit
Conjugate:	Peroxidase (HRP)
Clonality:	Monoclonal
Detection Kit Type:	ELISA Kit
Detection Range:	0.94 ng/ml - 60 ng/ml
Sensitivity:	0.59 ng/ml

Target Details

Reactivity:	Broad
Purity/Specificity:	This kit contains: 96 wells coated plate, Target Protein Standard, HRP Conjugated Monoclonal Antibody, Diluent, Wash buffer, TMB Substrate and stop reagent, see protocol for additional information.
Relevant Links:	• KOA0887 Protocol

Application Details

Tested Applications:	ELISA
Application Note:	Colorimetric Competitive ELISA (Enzyme-linked Immunosorbent Assay) assay for quantification of 8-hydroxy-2-deoxy Guanosine in Cell lysates, Plasma, Sample Matrices, and Urine. Sensitivity: 0.59 ng/mL. Range: 0.94-60 ng/mL.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	0.94 - 60 ng/ml
Other:	Intra-Assay Precision: Three samples of known concentration were assayed thirty times on one plate, the intra-assay coefficient of variation of the DNA Damage ELISA has been determined to be <5%. Inter-Assay Precision: Three samples of known concentration were assayed thirty times in three individual assays, the inter-assay coefficient of variation of the DNA Damage ELISA has been determined to be <5%.

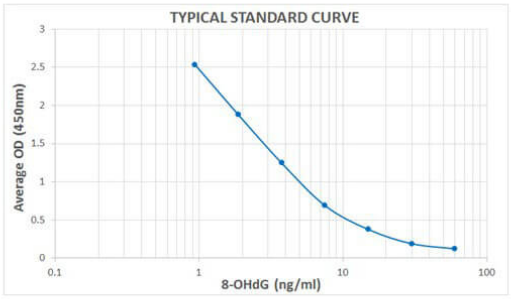
Formulation

Concentration:	1 Kit

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	See kit insert for component storage. Store kit at 4°C and -20°C.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA
ELISA results of DNA Damage (8-OHdG) displaying a typical Standard Curve for this kit using competitive/colorimetric ELISA Assay. Assay range 0.94-60ng/mL.

References

- Thorley J et al. Combined effects of green tea supplementation and eccentric exercise on nuclear factor erythroid 2-related factor 2 activity. *Eur J Appl Physiol.* (2024)

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