Datasheet for ABIN6963375

8-Hydroxydeoxyguanosine ELISA Kit

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Overview

Quantity:	96 tests
Target:	8-Hydroxydeoxyguanosine
Reactivity:	Various Species
Method Type:	Competition ELISA
Detection Range:	1.56 ng/mL - 100 ng/mL
Minimum Detection Limit:	1.56 ng/mL
Application:	ELISA

Product Details

Purpose:	The kit is a competitive inhibition enzyme immunoassay technique for the in vitro quantitative measurement in various sample types.
Sample Type:	Cell Culture Supernatant, Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This kit recognizes 8-OHdG in samples. No Significant cross-reactivity or interference between 8-OHdG and analogues was observed.
Sensitivity:	0.94 ng/mL
Components:	• Pre-coated, ready to use 96-well strip plate, flat buttom • Plate sealer for 96 wells • Reference Standard • Reference Standard & Sample Diluent

Product Details

- Biotinylated Detection Antibody (100 x concentrate)
- HRP Conjugate (100 x concentrate)
- Biotinylated Detection Antibody Diluent
- HRP Conjugate Diluent
- Substrate Reagent
- Stop Solution
- Wash Buffer (25 x concentrate)
- Instruction manual

Target Details

Target:	8-Hydroxydeoxyguanosine
Abstract:	8-Hydroxydeoxyguanosine Products

Application Details

Sample Volume:	50 µL
Assay Time:	2 h
Plate:	Pre-coated
Protocol:	1. Add 50 µL standard or sample to each well. Immediately add 50 µL Biotinylated Detection Antibody to each well. Incubate for 45 min at 37 °C. 2. Aspirate and wash 3 times. 3. Add 100 µL HRP Conjugate to each well. Incubate for 30 min at 37 °C. 4. Aspirate and wash 5 times. 5. Add 90 µL Substrate Reagent. Incubate 15 min at 37 °C. 6. Add 50 µL Stop Solution. Read at 450 nm immediately. 7. Calculation of results.
Reagent Preparation:	1. Bring all reagents to room temperature (18~25 °C) before use. Follow the Microplate reader manual for set-up and preheat it for 15 min before OD measurement. 2. Wash Buffer: Dilute 30 mL of Concentrated Wash Buffer with 720 mL of deionized or distilled water to prepare 750 mL of Wash Buffer. Note: if crystals have formed in the concentrate, warm it in a 40 °C water bath and mix it gently until the crystals have completely dissolved. 3. Standard working solution: Centrifuge the standard at 10,000xg for 1 min. Add 1.0 mL of Reference Standard &Sample Diluent, let it stand for 10 min and invert it gently several times. After it dissolves fully, mix it thoroughly with a pipette. This reconstitution produces a working solution of 100 ng/mL. Then make serial dilutions as needed. The recommended dilution gradient is as follows: 100, 50, 25, 12.5, 6.25, 3.13, 1.56, 0 ng/mL. Dilution method: Take 7 EP tubes, add 500 µLof Reference Standard & Sample Diluent to each tube. Pipette 500 µLof the 100 ng/mL stock solution to the first tube and mix up to produce a 50 ng/mL

Application Details

	working solution. Pipette 500 µLof the solution from the former tube into the latter one according to these steps. The illustration below is for reference. Note: the last tube is regarded as a blank. Don't pipette solution into it from the former tube. 4. Biotinylated Detection Antibody working solution: Calculate the required amount before the experiment (50 µL/well). In preparation, slightly more than calculated should be prepared. Centrifuge the stock tube before use, dilute the 100x Concentrated Biotinylated Detection Antibody to 1xworking solution with Biotinylated Detection Antibody Diluent. 5. Concentrated HRP Conjugate working solution: Calculate the required amount before the experiment (100 µL/well). In preparation, slightly more than calculated should be prepared. Dilute the 100x Concentrated HRP Conjugate to 1x working solution with Concentrated HRP Conjugate Diluent.
Sample Preparation:	• It is recommended to use fresh samples without long storage, otherwise protein degradation and denaturationmay occur in these samples, leading to false results. Samples should therefore be stored for a short periodat 2 - 8 °C or aliquoted at -20 °C (≤1 month) or -80 °C (≤ 3 months). Repeated freeze-thawcycles should be avoided. Prior to assay, the frozen samples should be slowly thawed and centrifuged toremove precipitates. • If the sample type is not specified in the instructions, a preliminary test is necessary to determinecompatibility with the kit. • If a lysis buffer is used to prepare tissue homogenates or cell culture supernatant, there is a possibilityof causing a deviation due to the introduced chemical substance.The recommended dilution factor is for reference only. • Please estimate the concentration of the samples before performing the test. If the values are not in therange of the standard curve, the optimal sample dilution for the particular experiment has to be determined.Samples should then be diluted with PBS (pH =7.0-7.2).
Assay Precision:	Intra-assay Precision (Precision within an assay): 3 samples with low, mid range and high level 8-OHdG were tested 20 times on one plate, respectively. Inter-assay Precision (Precision between assays): 3 samples with low, mid range and high level 8-OHdG were tested on 3 different plates, 20 replicates in each plate. Both intra-CV and inter-CV are < 10 %.
Restrictions:	For Research Use only

Handling

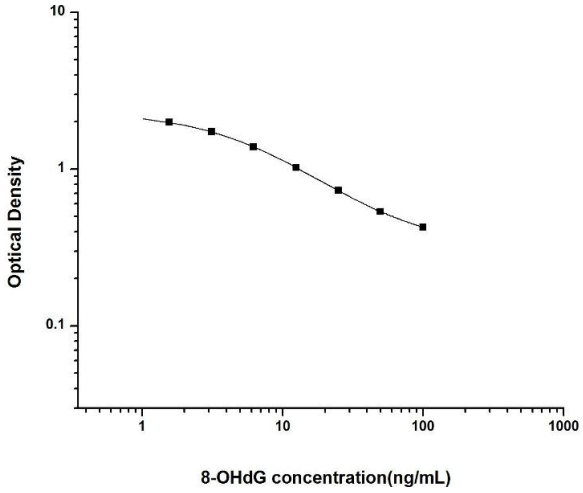
Storage:	4 °C,-20 °C
Storage Comment:	1. For unopened kit: All reagents should be stored according to the labels on the vials, so they are stable up to 6 months after receipt of the kit. The reference standard, biotinylated detection antibody, HRP conjugate, and 96-well strip plate should be stored at -20 °C upon receipt, while the other reagents should be stored at 4 °C. 2. For used kits: When the kit is used, the remaining reagents must be stored according to the

Handling

	above storage conditions. In addition, please return the unused wells to the foil pouch containing the desiccant and seal the foil pouch with the zipper. .
Expiry Date:	6 months

Publications

Product cited in:	Adu, Mabandla: "Effects of bromelain on motor responses following intra-medial forebrain bundle 6-OHDA injection in rat model of parkinsonism." in: **Metabolic brain disease**, Vol. 34, Issue 6, pp. 1557-1564, (2020) (PubMed). Singh, Vaishnav, Dinda, Mohanty: "Evaluation of Priming Efficiency of Forskolin in Tissue-Specific Human Mesenchymal Stem Cells into Dopaminergic Neurons: An In Vitro Comparative Study." in: **Cells**, Vol. 9, Issue 9, (2020) (PubMed). Luvuno, Khathi, Mabandla: "The effects of exercise treatment on learning and memory ability, and cognitive performance in diet-induced prediabetes animals." in: **Scientific reports**, Vol. 10, Issue 1, pp. 15048, (2020) (PubMed). Jia, Wang, Han, Geng, Li, Shi, Lu, Chen: "miR-137 and miR-491 Negatively Regulate Dopamine Transporter Expression and Function in Neural Cells." in: **Neuroscience bulletin**, Vol. 32, Issue 6 , pp. 512-522, (2017) (PubMed). There are more publications referencing this product on: Product page



ELISA

Image 1. Typical standard curve

