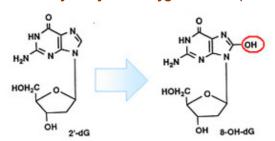


New 8-OHdG Check ELISA

ELISA kit for 8-hydroxy-2'-deoxyguanosine

FOR RESEARCH USE ONL

About 8-hydroxy-2'-deoxyguanosine (8-OHdG):



Formation of 8-hydroxy-2'-deoxyguanosine (8-OHdG) by oxigen radicals. H Kasal: Environmental Mutagen Research, Vol. 10, p73-78 (1988) 8-hydroxy-2'-deoxyguanosine (8-OHdG) is a product of oxidatively damaged DNA formed by hydroxy radical, singlet oxygen and direct photodynamic action. 8-OHdG can be detected in tissue, serum, urine and other biomaterials. New 8-OHdG Check is a competitive enzymelinked immunosorbent assay (ELISA) utilising monoclonal antibody (clone N45.1) which is highly specific for DNA damage, not cross react with RNA oxidation products such as 8-hydroxy-guanine and 8-hydroxy-guanosine. This product is suitable for detection of 8-OHdG in urine and other biomaterials from human and animals.



This product is a 8-OHdG ELISA kit utilizing <u>anti 8-OHdG monoclonal antibody (clone N45.1)</u> which is highly specific for 8-OHdG. We provide two types of 8-OHdG ELISA kits with different assay range. New 8-OHdG Check ELISA is suitable for urine and serum sample from animal and human. If you are planning to measure 8-OHdG in human serum,tissue, cultured cells, we recommend to use '<u>Highly Sensitive 8-OHdG Check ELISA</u>'.

Specifications

Assay principle: Competitive ELISA (detection: 450 nm)

Specifity: Specific for 8-OHdG. Antibody have been tested to 8-OHdG analogues (guanosine(G),7-methyl-G, 6-SH-G, 8-Bromo-G, dA,

dC, dT, dl, dU, dG, O6-methyl-dG,8-OHdA, guanine(Gua),O6-methyl-Gua, 8-OH-Gua, uric acid, urea, creatine, creatinine, 8-

sulfhydryl-G, 8-OH-G).

Measuring range: 0.5 to 200 ng/mL

Format: 96 w ells (18 samples in triple assays)

Applications: Urine from human and animals.

For serum and tissue samples, Highly Sensitive 8-OHdG Check (code #KOG-HS10E) is recommended.

Storage: Store at 4 - 10°C (don't freeze).

Product name	Code	Assay range	Format	Application	
New 8-OHdG Check	KOG-200 SE	0.5-200 ng/mL	96 w ells	Urine and animal serum.	
New 8-OHdG Check Trial Package	KOG-200 TE	0.5-200 ng/mL	32 w ells	Office and animal serum.	

Related products: <u>Highly sensitive 8-OHdG Check ELISA</u> <u>Anti 8-OHdG monoclonal antibody</u>

FOR RESEARCH USE ONLY. Not for diagnostic, medical or other use.

Japan Institute for the Control of Aging (JalCA) TEL:+81-538490125 / FAX:+81-538491267 http://www.jaica.com

Gentaur Molecular Products Voortstraat 49 1910 Kampenhout, Belgium

Content of this kit

8-OHdG Microtiter Plate:	Precoated with 8-OHdG(12 X 8w ells, split type)*	1 plate
--------------------------	--	---------

Primary Antibody: Anti 8-OHdG antibody, pow der. 1 vial

Primary Antibody Solution 1 vial (6mL)

Secondary Antibody: HRP-anti mouse antibody, pow der. 1 vial

Secondary Antibody Solution: 1 vial (12mL)

Chromatic Solution: 3,3',5,5'-tetramethylbenzidine 1 vial (0.25mL)

Diluting Solution: H_2O_2 containing buffer. 1 vial (12mL)

Washing Solution(5x): 2 vials (26mL x 2)*

Reaction Terminating Solution: 1M Phosphoric acid. 1 vial (12mL)

Standard 8-OHdG Solution: Purified 8-OHdG (0.5, 2, 8, 20, 80, 200 ng/mL) 1 vial each

Plate Seal: 2 sheets

References

- 1) H.Kasai, P.F.Crain, Y.Kuchino, S.Nishimura, A.Ootsuyama and H.Tanooka: Formation of 8-hydroxyguaine moiety in cellular DNA by agents producing oxygen radicals and evidence for its repair. Carcinogenesis 7(11), p1849-1851 (1986)

 [8-OHdG/8-OHG is formed by reactive oxygen radicals.]
- 2) R.G.Cutler: Antioxidants and aging. Am J Clin Nutr 50,p373S-379S (1991) Relationship between lifespan and antioxidants, enzymes and 8-OHdG.]
- 3) S.Toyokuni, T.Tanaka, Y.Hattori, Y,Nishiyama, A.Yoshida, K.Uchida, H.Hiai, H.Ochi and T.Osawa: Quantitative immunohistochemical determination of 8-hydroxy-2'deoxyguanosine by a monoclonal antibody N45.1: Its application to ferric nitrilotriacetate-induced renal carcinogenesis model. Lab Invest 76(3), p365-374 (1997)
 [Specifity of the antibody clone N45.1.]
- 4) Saito S, Yamauchi H, Hasui Y, Kurashige J, Ochi H, Yoshida K: Quantitative determination of urinary 8-hydroxydeoxyguanosine (8-OH-dg) by using ELISA. Res Commun Mol Pathol Pharmacol 107(1-2),p39-44 (2000)

 [Development and assessment of 8-OHdG Check ELISA.]
- 5) Nagayoshi Y, Kawano H, Hokamaki J, Miyamoto S, Kojima S, Shimomura H, Tsujita K, Sakamoto T, Yoshimura M, Ogawa H: Urinary 8-hydroxy-2'-deoxyguanosine levels increase after reperfusion in acute myocardial infarction and may predict subsequent cardiac events. Am J Cardiol. 95(4), p514-517 (2005)

[Measurement of 8-OHdG in human urine.]

- 6) Morillas-Ruiz J, Zafrilla P, Almar M, Cuevas MJ, Lopez FJ, Abellan P, Villegas JA, Gonzalez-Gallego J: The effects of an antioxidant-supplemented beverage on exercise-induced oxidative stress: results from a placebo-controlled double-blind study in cyclists. Eur J Appl Physiol 95(5-6),p543-549(2005)
 - [Study about exercise, antioxidant supplements and urinary 8-OHdG.]
- 7) Someya T, Kaneko K, Yamada T, Yamashiro Y: Effect of a novel free radical scavenger, edaravone, on puromycin aminonucleoside induced nephrosis in rats. Pediatr Nephrol 20(10),p1430-1434(2005)

[Effect of antioxidants to 8-OHdG in rat urine.]

8) Shiihara T, Kato M, Ichiyama T, Takahashi Y, Tanuma N, Miyata R, Hayasaka K: Acute encephalopathy with refractory status epilepticus: Bilateral mesial temporal and claustral lesions, associated with a peripheral marker of oxidative DNA damage. J Neurol Sci 250(1-2),p159-161(2006)

[Measurement of 8-OHdG in human urine, serum and cerebro spinal fluid(CSF).]

FOR RESEARCH USE ONLY. Not for diagnostic, medical or other use.

^{*:}Trial package (KOG-200TE) contains 32 w ells (4 X 8 w ells), and one vial of Washing solution(5X).