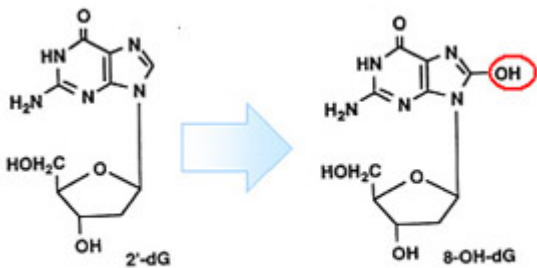


## Highly Sensitive 8-OHdG Check ELISA

Suitable for assessment of oxidative stress in serum, tissue and cultured cells. For research use only.

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



Formation of 8-hydroxy-2'-deoxyguanosine (8-OHdG) by oxygen radicals.  
H Kasai: 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 enzyme-linked 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 anti 8-OHdG monoclonal antibody (clone N45.1) which is highly specific for 8-OHdG. We provide two types of 8-OHdG ELISA kits with different assay range. Highly Sensitive 8-OHdG Check ELISA is suitable for urine, serum, tissue and cultured cells.

### Specifications

**Assay principle:** Competitive ELISA (detection: 450 nm)

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<b>Specificity:</b>	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-sulphydryl-G, 8-OH-G).
<b>Measuring range:</b>	0.125 to 10 ng/mL
<b>Format:</b>	96 wells (18 samples in triple assays)
<b>Applications:</b>	Urine, serum, tissue and cultured cells.
<b>Storage:</b>	Store at 4 - 10°C (don't freeze).
<b>Expiry:</b>	9 months after the day of manufacturing.
<b>Required but not provided:</b>	Micropipet and chip (100 µL, 1000 µL). Measuring pipet (10 mL, 20 mL)/ measuring cylinders. 8 or 12-synchronous multichannel pipet and reagent tray for multichannel pipet. Microplate reader (filter; 450 nm).

## Content of this kit

<b>8-OHdG Microtiter Plate:</b>	Precoated with 8-OHdG(12 X 8wells, split type)	1 plate
<b>Primary Antibody:</b>	Anti 8-OHdG antibody, powder.	1 vial
<b>Primary Antibody Solution</b>		1 vial (6mL)
<b>Secondary Antibody:</b>	HRP-anti mouse antibody, powder.	1 vial
<b>Secondary Antibody Solution:</b>		1 vial (12mL)
<b>Chromatic Solution:</b>	3,3',5,5'-tetramethylbenzidine	1 vial (0.25mL)
<b>Diluting Solution:</b>	H <sub>2</sub> O <sub>2</sub> containing buffer.	1 vial (12mL)
<b>Washing Solution(5x):</b>		2 vials (26mLx2)
<b>Reaction Terminating Solution:</b>	1M Phosphoric acid.	1 vial (12mL)
<b>Standard 8-OHdG Solution:</b>	Purified 8-OHdG (0.125, 0.25, 0.5, 1, 4, 10 ng/mL)	1 vial each

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Plate Seal:

2 sheets

## References

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[ 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. ]
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[ Specificity of the antibody clone N45.1.]
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[ Serum 8-OHdG in IDC patients are assessed. ]
- 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):159-61(2006)  
[ Measurement of 8-OHdG in human urine, serum and cerebro spinal fluid(CSF). ]

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- 9) Reiko Nagasaka, Nobuaki Okamoto, Hideki Ushio: Effects of caloric restriction on post-spawning death of ayu. *Exp Gerontol* 40, p556-561(2005)  
[ Detection of 8-OHdG in fish tissues (brain and liver). ]
- 10) Yasuda M, Ide H, Furuya K, Yoshii T, Nishio K, Saito K, Isotani S, Kamiyama Y, Muto S, Horie S: Salivary 8-OHdG: a useful biomarker for predicting severe ED and hypogonadism. *J Sex Med.* 5(6),p1482-1491(2008)  
[ 8-OHdG in saliva can be detected by 8-OHdG ELISA. ]

Product name	Code	Assay range	Application
Highly Sensitive 8-OHdG Check	KOG-HS10E	0.125 - 10 ng/mL	Serum, plasma, tissue and other biological fluids.

Made in Japan.

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