ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

8-hydroxyguanosine (8-OHG) Antibodies

½ **Cat** # 8OHG11-M Mouse Monoclonal Anti-8-hydroxyguanosine (8-OHG) IgG # 1 **SIZE**: 100 ug

½ **Cat** # 8OHG12-S Goat Anti-8-hydroxyguanosine (8-OHG) antiserum # 2 **SIZE**: 100 ul

Reactive oxygen species (ROS) are formed at high levels as by-products of the normal cellular metabolism. Both nuclear and Mitochondrial DNA has been shown to accumulate high levels of 8-hydroxy-2'-deoxyguanosine, a very stable and damaging product of hydroxylation of guanine at carbon 8. 8-hydroxyguanosine (8-OHG) induces transversion of G to T, which is potentially mutagenic. The base excision repair (BER) pathway is the most important cellular protection mechanism responding to oxidative DNA damage. They remove modified DNA bases before they are incorporated into DNA during replication. The key enzymes MutT homologs (MutT/MTH) in the BER process are DNA glycosylases, which remove different damaged bases by cleavage of the N-glycosylic bonds between the bases and the deoxyribose moieties of the nucleotide residues. The 8-oxoG glycosylases (Fpg or MutM/OGG) and the MutY homologs (MutY/MYH) glycosylases along with MutT/MTH protect cells from the mutagenic effects of 8-oxoG. 8-hydroxyguanosine (8-OHG) has been used as oxidative stress marker.

Source of Antigen and Antibodies

#8OHG11-M

Antigen	8-OHG-BSA-casein conjugate
Ab Host/type	Balb/c **mouse**. clone (designated 8OHG11, isotype IgG2a). Antibody has been purified by Protein A/G column chromatography. Supplied in PBS, pH 7.4, 0.1% azide
2-Ab	**Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)**)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

☐ 100 ug/100ul ☐ solution ☐ lyophilized powder

Supplied in **Buffer**: PBS+0.1% azide

Reconstitute powder in water

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

Shipping: 4oC for solutions and room temp for powder.

#8OHG12-S

Antigen	8-OHG-BSA-casein conjugate
Ab Host/type	goat, Polyclonal antiserum # **8OHG12**-S) supplied in 0.1% azide
2-Ab	**Rabbit Anti-goat IgG-HRP conjugate** Cat # 30220 (AP, biotin, FITC conjugates also available)
-ve control IgG	# 20011-1, Goat (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Recommended Usage

ELISA (0.1-5 ug/ml).

Histochemistry & Immunofluorescence: An initial testing of 2-10 ug/ml is recommended. Users must optimize antibody dilution depending upon the nature of samples and other technical conditions. See published refs 2.

Specificity & Cross-reactivity

The antibody recognizes 8-hydroxy-2'-dexoyguanosine (oh8dG), 8-hydroxyguanine (oh8G), and 8-hydroxyguanosine. Antibodies should recognize 8OHG-modifed proteins in all species.

General References: PNAS 1992, 89, 3375-3379; J Neurosci. 19, 1959-1964; Gene 2002;286:127-34; Cell Biochem Biophys 2001;35:141; Mutat Res 2002, 513(1-2):37-48; Free Radic Biol Med 2000, 28(1):13; Free Radic Biol Med 1999, 11-12:1251-8

Citations of for ADI Antibodies (see updated at the web site)

Li J 2007 3295	J. Clin. Invest., Nov 2007; 117: 3283 - IHC,	mouse brain
Manczak M	2005 IHC,	J. Neurochemistry 92,494-504, mouse brain
Ghosh S 2006 1413-1424,	Free Radical Biology and Medicine, 41, IF	rat heart, used goat antibodies

*This product is for In vitro research use only.

8OHG11-M-12-S 150517A

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444

Email: customerservice@lifetechindia.com Website: www.lifetechindia.com