

DNA and RNA Oxidative Damage Markers Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 12501 (clone 15A3)

Size: 100ug Protein-G purified antibody in Tris-buffered saline (TBS), pH 7.4

SPECIFICATION SUMMARY

Antigen: 8-hydroxyguanosine (oh⁸G)-BSA and –casein conjugates.

Host Species: Mouse

Antibody Class: IgG2b

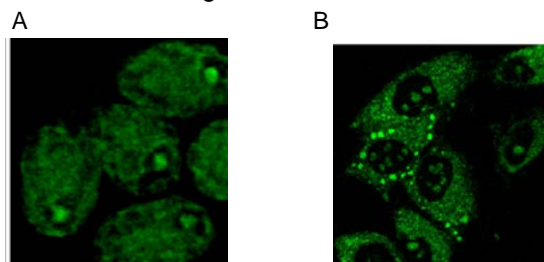
Preservative: 0.1% sodium azide

SPECIFICITY

This antibody recognizes 8-hydroxy-2'-deoxyguanosine (oh⁸dG), 8-hydroxyguanine (oh⁸G), and 8-hydroxyguanosine (oh⁸G). These are markers of oxidative damage to DNA and RNA.

APPLICATIONS

This antibody may be used in ELISA and immunohistochemistry to detect the markers of oxidative damage to DNA and RNA. May also be used on immunoaffinity columns to isolate oxidative DNA damage adducts from biological fluids.



Distribution of 8-oxoG in (A) H₂O₂-treated *Chlamydomonas* and (B) Arsenite-treated HeLa cells.

Courtesy of William Zerges, Concordia University.(reference #6 below)

DILUTION INSTRUCTIONS

Dilute in TBS or medium that is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at 4°C. Avoid repeated freeze-thaw cycles. Do not freeze as this might result in precipitation of the antibody.

For in vitro investigational use only. Not intended for diagnostic or therapeutic applications.

PRODUCT REFERENCES

1. Park et al. (1992) *Assay of excised oxidative DNA lesions: Isolation of 8-oxoguanine and its nucleoside derivatives from biological fluids with a monoclonal antibody column.* Proc Natl Acad Sci (USA) 89: 3375-3379.
2. Nunomura et al. (1999) *RNA Oxidation is a prominent feature of vulnerable neurons in Alzheimer's Disease.* J Neuroscience 19: 1959-1964.
3. Cui et al. (1999) *Oxidative damage to the c-fos gene and reduction of its transcription after focal cerebral ischemia.* J Neurochemistry 73:1164-1174.
4. Salganik et al. (2000) *Dietary antioxidant depletion: enhancement of tumor apoptosis and inhibition of brain tumor growth in transgenic mice.* Carcinogenesis 21: 909-914.

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5. Tanaka et al. (2007) *Oxidized messenger RNA induces translation errors*. Proc Natl Acad Sci (USA) 104: 66-71.
6. Zhan et al. (2015) *Localized control of oxidized RNA*. Journal of Cell Science 128: 4210-4219.
7. Kharel et al. (2016) *Evidence of extensive RNA oxidation in normal appearing cortex of multiple sclerosis brain*. Neurochemistry International 92: 43-48.