**Product datasheet**

**Anti-8 Hydroxyguanosine antibody ab10802**

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### Overview

**Product name**  
Anti-8 Hydroxyguanosine antibody

**Description**  
Goat polyclonal to 8 Hydroxyguanosine

**Host species**  
Goat

**Specificity**  
ab10802 cross reacts completely with 8-OHdG, and does not cross react with other naturally occurring nucleotides.

**Tested applications**  
Suitable for: IHC-P, ELISA

**Species reactivity**  
Reacts with: Species independent

**Immunogen**  
8-Hydroxyguanosine - conjugate.

**Positive control**  
Stressed tissue such as Alzheimer's affected neurons, or Human brain pre treated with 10ug proteinase K for 40mins at 37°C

### Properties

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**  
Preservative: 0.09% Sodium azide  
Constituent: Whole serum

**Purity**  
Whole antiserum

**Clonality**  
Polyclonal

**Isotype**  
IgG

### Applications

Our **Abpromise guarantee** covers the use of **ab10802** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
8-Hydroxydeoxyguanosine (8OHdG) is a modified base that occurs in DNA due to attack by hydroxyl radicals that are formed as byproducts and intermediates of aerobic metabolism and during oxidative stress. There is increasing evidence to support the involvement of free radical reactions in the damage of biomolecules that eventually lead to several diseases in humans, such as atherosclerosis, cerebral and heart ischemia-reperfusion injury, cancer, rheumatoid arthritis, inflammation, diabetes, aging, and neurodegenerative conditions, such as Alzheimer’s disease. 8OHdG has become increasing popular as a sensitive, stable and integral marker of oxidative damage in cellular DNA. Biomonitoring in humans has demonstrated that 8OHdG can be excreted in the urine, and that a significant increase is caused by exposure to tobacco smoke and ionizing radiation. Because 8OHdG is so well correlated with oxidative stress and damage to DNA, which leads to degenerative disease states, the development of an antibody that can be used to study DNA damage has numerous applications. In addition to the direct study of DNA damage within cells, this antibody has applications in the development of immunoassays that can monitor 8OHdG excretion in the urine and serve as a biomarker of oxidative stress.

### Images

Immunohistochemical analysis of cat hepatic tissue, labeling 8 Hydroxyguanosine with ab10802. Sample fixed in paraformaldehyde. Heat mediated antigen retrieval with Tris-EDTA (pH9). Treated with ab10802 diluted 1/1500 in PBS plus casein for 1 hour and 30 minutes at 37°C. Secondary was ImmPress anti-goat HRP-conjugated polyclonal antibody.

- **Application**
  - IHC-P: 1/200. Perform enzymatic antigen retrieval with 10 μg/ml proteinase K for 40 minutes at 37°C.
  - ELISA: 1/100000 - 1/250000.

- **Target**
  - **Relevance**
    - 8-Hydroxydeoxyguanosine (8OHdG) is a modified base that occurs in DNA due to attack by hydroxyl radicals that are formed as byproducts and intermediates of aerobic metabolism and during oxidative stress. There is increasing evidence to support the involvement of free radical reactions in the damage of biomolecules that eventually lead to several diseases in humans, such as atherosclerosis, cerebral and heart ischemia-reperfusion injury, cancer, rheumatoid arthritis, inflammation, diabetes, aging, and neurodegenerative conditions, such as Alzheimer’s disease. 8OHdG has become increasing popular as a sensitive, stable and integral marker of oxidative damage in cellular DNA. Biomonitoring in humans has demonstrated that 8OHdG can be excreted in the urine, and that a significant increase is caused by exposure to tobacco smoke and ionizing radiation. Because 8OHdG is so well correlated with oxidative stress and damage to DNA, which leads to degenerative disease states, the development of an antibody that can be used to study DNA damage has numerous applications. In addition to the direct study of DNA damage within cells, this antibody has applications in the development of immunoassays that can monitor 8OHdG excretion in the urine and serve as a biomarker of oxidative stress.

- **Images**
  - Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-8 Hydroxyguanosine antibody (ab10802)
    - This image is courtesy of an anonymous Abreview.
IHC staining on Alzheimer disease brain showing oxidized RNA in neurons. The tissue sections were formalin-fixed, paraffin embedded with either (A) no pretreatment or (B) pretreatment with 10 µg/ml proteinase K for 40 minutes at 37°C. Each was stained with a 1:200 dilution.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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