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| Catalog Number: | NB100-106SS |
| Background: | <p>8-hydroxyguanine, a form of oxidative DNA damage induced by free radicals, causes G:C to T:A transversion. In <i>E. coli</i>, three DNA repair enzymes exist to prevent the mutagenic effects of 8-hydroxyguanine. One of these enzymes, MutM, was found to have a functional yeast (yOgg1) and human (hOgg1) homologue.</p> <p>hOgg1 proteins efficiently release the 8-hydroxyguanine opposite the pyrimidine from DNA and cleave the AP site in a manner similar to bacterial and yeast enzymes. Genetic backgrounds in control of the repair of damaged DNA are involved in the susceptibility to cancer development. The hOgg1 gene has been mapped to region 3p26.2, a region showing loss of heterozygosity (LOH) in a variety of cancers. In particular, 3p25-p26 is a common LOH region in lung cancer.</p> <p>Recent work has demonstrated that Ogg plays an important role in CAG expansion, a characteristic of several neurodegenerative diseases. Ogg appears to be responsible for progressive expansion of poly-Q tracts in response to oxidative damage. Thus, Ogg provides a direct link between DNA damage and toxicity in neurons.</p> |
| Alternate Names: | Anti-8-oxoguanine DNA glycosylase antibody; Anti-DNA lyase antibody; Anti-DNA-(apurinic or apyrimidinic site) lyase antibody; Anti-HMMH antibody; Anti-HOGG 1 antibody; Anti-HOGG1 antibody; Anti-MUTM antibody; Anti-N-glycosylase antibody; Anti-Ogg 1 antibody; Anti-OGH 1 antibody; Anti-OGH1 antibody |
| Immunogen: | A peptide derived from the human Ogg1 (within amino acids 1-100). |
| Specificity: | This antibody is specific for hOgg1. |
| Localization: | Mitochondrial and Nuclear |
| Species Reactivity: | Reacts with human, primate, and rat. 86% sequence identity with mouse protein. |
| Uses: | <p>This antibody may be used in Western blot where it recognizes a band at ~39 kDa, representing Ogg1 (tested in human). For immunohistochemistry it has been tested on human and primate. It may also work on rat in immunohistochemistry-Frozen (see Novus Specific reference 5 - Dobson, AW, et al).</p> <p>* Other applications have not been tested.</p> |
| Dilutions: | <p>Suggested working dilutions *</p> <p>Western Blot 1:500-1:1000, Immunohistochemistry-Paraffin 1:1000, Immunohistochemistry-Frozen 1:25-1:100</p> <p>* Investigator should determine optimal working dilutions.</p> |
| Positive Controls: | Jurkat whole cell extracts (NB 800-PC2) |
| Packaging: | 0.025 ml Affinity purified Rabbit antisera. |
| Concentration: | 1.0 mg/ml |
| Buffer: | PBS |

Preservative: 0.1% sodium azide

Storage: Store at 4C. Do not freeze.

Notes: Production was supported by SBIR grant R43CA83507-01.

Product Specific References:

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Gene Id: 4968

Reference Sequence: O15527

Image(s)



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