

## 8-Oxoguanine DNA Glycosylase Antibody

Mouse Monoclonal Antibody [Clone CPTC-OGG1-1]

Catalog No	Format	Size
4968-MSM1-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
4968-MSM1-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
4968-MSM1-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

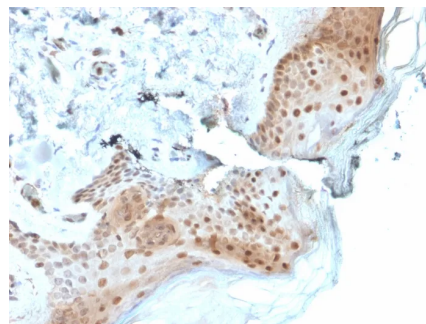
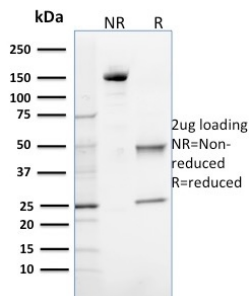
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

### Product Details

Clone	CPTC-OGG1-1
Gene Name	OGG1
Immunogen	Recombinant full-length human OGG1 protein
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2c / Kappa
Mol. Weight of Antigen	39kDa
Cellular Localization	Mitochondrion, Nucleoplasm, Nucleus, Nucleus matrix, Nucleus speckle
Species Reactivity	Human
Positive Control	HeLa or Jurkat cells. Kidney, skin or lymph node.

\*Optimal dilution for a specific application should be determined.

### Product Images for 8-Oxoguanine DNA Glycosylase Antibody



SDS-PAGE Analysis of Purified 8-oxoguanine Mouse Monoclonal Antibody (CPTC-OGG1-1). Confirmation of Purity and Integrity of Antibody.

Formalin-fixed, paraffin-embedded human Skin stained with 8-oxoguanine Mouse Monoclonal Antibody (CPTC-OGG1-1).

### Specificity & Comments

8-oxoguanine (8-oxoG), an oxidized form of guanine, is produced by reactive oxygen species in both DNA and nucleotide pools during normal aging. Accumulation of 8-oxoG increases the occurrence of A:T to C:G or G:C to T:A transversion mutations, because 8-oxoG forms a stable basepair with adenine as well as with cytosine. OGG1 (for 8-oxoG DNA glycosylase), also designated MMH, is a DNA repair enzyme that corrects these mutations. Inactivation of the OGG1 gene leads to a mutator phenotype, characterized by the increase in G:C to T:A transversions. The OGG1 gene encodes eight isoforms (OGG1A-C, OGG2A-E) which result from alternative splicing of a single messenger RNA. The OGG1A splice variant is the most prevalent form and localizes to the nucleus, whereas the OGG2A splice variant is targeted to the mitochondria. Guanine is the main target for reactive oxygen species in DNA, and 8-oxoguanine is the most frequent base lesion. Therefore, formation of 8-oxoguanine is an important biomarker of oxidative damage to DNA. It is primarily repaired by the DNA glycosylase OGG1. Furthermore, defects in OGG1 may be a cause of renal cell carcinoma.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

### Research Areas

Cardiovascular, Infectious Disease, Nuclear Marker