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36-2886: Anti-8-Oxoguanine DNA Glycosylase Monoclonal Antibody(Clone: CPTC-OGG1-1)

Clonality :	Monoclonal
Clone Name :	CPTC-OGG1-1
Application :	IHC
Reactivity :	Human
Gene :	OGG1
Gene ID :	4968
Uniprot ID :	O15527
Alternative Name :	HMMH, HOGG1, MUTM, OGH1
Isotype :	Mouse IgG2c, kappa
Immunogen Information :	Recombinant full-length human OGG1 protein

Description

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 transversionmutations, 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.

Product Info

Amount :	20 µg / 100 µg
Content :	200 µg/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 condition :	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.

Application Note

Immunohistochemistry (Formalin-fixed) (1-2ug/ml for 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&degC followed by cooling at RT for 20 minutes);

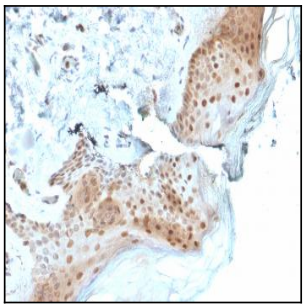

Fig. 1: Formalin-fixed, paraffin-embedded human Skin stained with 8-oxoguanine Mouse Monoclonal Antibody (CPTC-OGG1-1).

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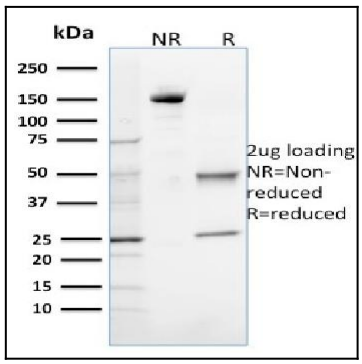

Fig. 2: SDS-PAGE Analysis Purified 8-oxoguanine Mouse Monoclonal Antibody (CPTC-OGG1-1). Confirmation of Purity and Integrity of Antibody.

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