

Product Datasheet

OGG1 Antibody (orb2643627)

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 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.

Species/Host

Mouse

Reactivity

Human

Conjugation

Unconjugated

Tested Applications

IHC-P

Immunogen

A recombinant full-length human protein was used as the immunogen for this OGG1 antibody.

Preservatives

0.2 mg/ml with 0.1 mg/ml rAlbumin (US sourced), 0.05% sodium azide

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Note

For research use only

Application notes

Optimal dilution of the antibody should be determined by the researcher.

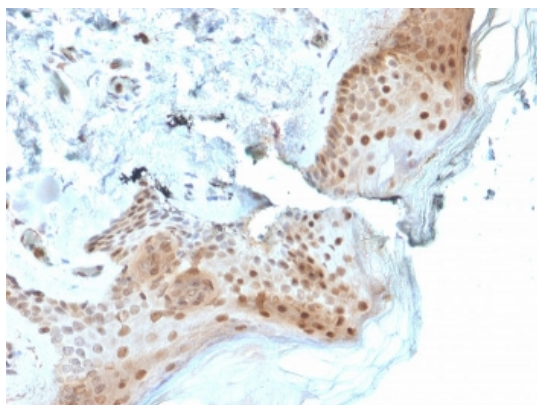
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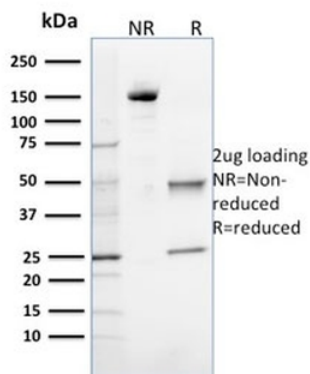
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Formula	0.2 mg/ml with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide
Isotype	Mouse IgG2c, kappa
Clonality	Monoclonal
Clone Number	CPTC-OGG1-1
Antibody Type	Primary Antibody
Purity	Protein G affinity chromatography
Uniprot ID	O15527
Hazard Information	This OGG1 antibody is available for research use only.
Dilution Range	Immunohistochemistry (FFPE): 1-2ug/ml
Expiration Date	12 months from date of receipt.



IHC staining of FFPE human skin with OGG1 antibody. HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free OGG1 antibody as confirmation of integrity and purity.

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