OGG1 Antibody (C-Term) Blocking Peptide

PRODUCT OVERVIEW

Product Name	OGG1, Blocking Peptide
Full Product Name	OGG1 Antibody (C-term) Blocking Peptide
Product Gene Name	OGG1 blocking peptide
Product Synonym Gene Name	MMH; MUTM; OGH1
Product Synonym Names	N-glycosylase/DNA lyase; 8-oxoguanine DNA glycosylase; 322-; DNA-(apurinic or apyrimidinic site) lyase; AP lyase; OGG1; MMH; MUTM; OGH1
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 1 mg/ml.
Specificity	The synthetic peptide sequence used to generate the antibody was selected from the C-term region of human OGG1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	OGG1 peptide (MBS9226437) is used for blocking the activity of OGG1 antibody (MBS9203606)
Molecular Weight	36,085 Da
OMIM	144700
Cellular Location	Nucleus, nucleoplasm. Nucleus speckle. Nucleus matrix. Note: Together with APEX1 is recruited to nuclear speckles in UVA-irradiated cells Isoform 2A: Mitochondrion.
Tissue Location	Ubiquitous.
Related Product Information for OGG1 blocking peptide	DNA repair enzyme that incises DNA at 8-oxoG residues. Excises 7,8-dihydro-8-oxoguanine and 2,6-diamino-4-hydroxy-5-N- methylformamidopyrimidine (FAPY) from damaged DNA. Has a beta- lyase activity that nicks DNA 3' to the lesion.
Other Notes	Small volumes of OGG1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for OGG1 purchase	MBS9226437 is a blocking peptide targeting OGG1. Also known as OGG1 Antibody (C-term) Blocking Peptide.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for OGG1. It may not necessarily be applicable to this product.

NCBI GI #	12643548
NCBI GeneID	4968
NCBI Accession #	O15527.2
UniProt Primary Accession #	O15527
UniProt Secondary Accession #	O00390; O00670; O00705; O14876; O95488; P78554; Q9BW42; Q9UIK0; Q9UIK1; Q9UIK2; A8K1E3
UniProt Related Accession #	O15527
NCBI Official Full Name	N-glycosylase/DNA lyase
NCBI Official Synonym Full Names	8-oxoguanine DNA glycosylase

NCBI Official Symbol	OGG1
NCBI Official Synonym Symbols	HMMH; MUTM; OGH1; HOGG1
UniProt Protein Name	N-glycosylase/DNA lyase
Protein Family	N-glycosylase/DNA lyase
UniProt Gene Name	OGG1
UniProt Synonym Gene Names	MMH; MUTM; OGH1; AP lyase
UniProt Entry Name	OGG1_HUMAN
NCBI Protein Information	N-glycosylase/DNA lyase
NCBI Summary for OGG1	This gene encodes the enzyme responsible for the excision of 8-oxoguanine, a mutagenic base byproduct which occurs as a result of exposure to reactive oxygen. The action of this enzyme includes lyase activity for chain cleavage. Alternative splicing of the C-terminal region of this gene classifies splice variants into two major groups, type 1 and type 2, depending on the last exon of the sequence. Type 1 alternative splice variants end with exon 7 and type 2 end with exon 8. All variants share the N-terminal region in common, which contains a mitochondrial targeting signal that is essential for mitochondrial localization. Many alternative splice variants for this gene have been described, but the full-length nature for every variant has not been determined. [provided by RefSeq, Aug 2008]
UniProt Comments for OGG1	OGG1: DNA repair enzyme that incises DNA at 8-oxoG residues. Excises 7,8-dihydro-8-oxoguanine and 2,6-diamino-4-hydroxy-5-N- methylformamidopyrimidine (FAPY) from damaged DNA. Has a beta- lyase activity that nicks DNA 3' to the lesion. Defects in OGG1 may be a cause of renal cell carcinoma (RCC). It is a heterogeneous group of sporadic or hereditary carcinoma derived from cells of the proximal renal tubular epithelium. It is subclassified into clear cell renal carcinoma (non-papillary carcinoma), papillary renal cell carcinoma, chromophobe renal cell carcinoma, collecting duct carcinoma with medullary carcinoma of the kidney, and unclassified renal cell carcinoma. Belongs to the type-1 OGG1 family. 8 isoforms of the human protein are produced by alternative splicing. Protein type: Lyase; Deoxyribonuclease; DNA repair, damage; EC 4.2.99.18 Chromosomal Location of Human Ortholog: 3p26.2 Cellular Component: nuclear matrix; nuclear speck; nucleoplasm; nucleus; protein complex Molecular Function: damaged DNA binding; endonuclease activity; oxidized purine base lesion DNA N-glycosylase activity; oxidized purine DNA binding; protein binding Biological Process: base-excision repair; depurination; depyrimidination; nucleotide-excision repair, DNA incision; regulation of protein import into nucleus, translocation; regulation of transcription, DNA-dependent; response to DNA damage stimulus; response to oxidative stress; response to radiation Disease: Renal Cell Carcinoma, Nonpapillary
Research Articles on OGG1	**1.** XPC protein is required for OGG1 activity, but XPC does not interacts physically with OGG1.
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