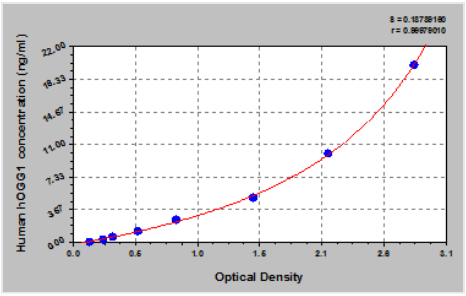
8-Oxoguanine DNA Glycosylase (OGG1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	8-oxoguanine DNA glycosylase (OGG1), ELISA Kit
Full Product Name	Human 8-oxoguanine DNA glycosydase, hOGG1 ELISA Kit
Product Gene Name	OGG1 elisa kit
Product Synonym Names	Human 8-oxoguanine DNA glycosydase (hOGG1) ELISA kit; HMMH; HOGG1; MUTM; OGH1; 8-hydroxyguanine DNA glycosylase; 8-oxoguanine DNA-glycosylase 1; AP lyase; DNA-apurinic or apyrimidinic site lyase; 8-oxoguanine DNA glycosylase
Species Reactivity	Human
Assay Type	Quantitative Sandwich
Samples	Serum, tissue homogenates, cell lysates
Detection Range	0.312 ng/ml-20 ng/ml
Sensitivity	< 0.078 ng/ml
Specificity	This assay has high sensitivity and excellent specificity for detection of human hOGG1. No significant cross-reactivity or interference between human hOGG1 and analogues was observed.
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.
Inter-assay Precision	Inter-assay Precision (Precision between assays): CV%<10%. Three samples of known concentration were tested in twenty assays to assess.
Intra-assay Precision	Intra-assay Precision (Precision within an assay): CV%<8%. Three samples of known concentration were tested twenty times on one plate to assess.
Molecular Weight	38,782 Da
OMIM	601982
3D Structure	ModBase 3D Structure for O15527
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for OGG1 elisa kit	Principle of the Assay: This assay employs the quantitative sandwich enzyme immunoassay technique. Antibody specific for hOGG1 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any hOGG1 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for hOGG1 is added to the wells. After washing, avidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of hOGG1 bound in the initial step. The color development is stopped and the intensity of the color is measured.
Other Notes	Small volumes of OGG1 elisa kit 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	MBS702793 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the 8-oxoguanine DNA glycosylase (OGG1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing OGG1. The ELISA analytical biochemical technique of the MBS702793 kit is based on OGG1 antibody-OGG1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect OGG1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, OGG1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of OGG1 elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	4505495
NCBI GeneID	4968
NCBI Accession #	NP_002533.1
UniProt Primary Accession #	O15527
UniProt Secondary Accession #	O00390; O00670; O00705; O14876; O95488; P78554; Q9BW42; Q9UIK0; Q9UIK1; Q9UIK2; A8K1E3
UniProt Related Accession #	O15527
GenBank Nucleotide #	NM_002542.5
NCBI Official Full Name	N-glycosylase/DNA lyase isoform 1a
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; AP lyase; OGG1 type 1f; 8-hydroxyguanine DNA glycosylase; DNA-apurinic or apyrimidinic site 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	**Function:** 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. **Catalytic activity:** The C-O-P bond 3' to the apurinic or apyrimidinic site in DNA is broken by a beta-elimination reaction, leaving a 3'-terminal unsaturated sugar and a product with a terminal 5'-phosphate.

Research Articles on OGG1	**1.** Cigarette smoking and hOGG1 Ser326Cys polymorphism are associated with 8-OHdG accumulation on mitochondrial DNA in thoracic esophageal squamous cell carcinoma.
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