

Oxoguanine Glycosylase 1 (OGG1) Active Protein | OGG1 active protein

Active Oxoguanine Glycosylase 1 (OGG1)

CATALOG # AAA161893	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Oxoguanine Glycosylase 1 (OGG1); Active Oxoguanine Glycosylase 1 (OGG1); Oxoguanine Glycosylase 1; HMMH; HOGG1; MUTM; OGH1; 8-Oxoguanine DNA Glycosylase; DNA-(apurinic or apyrimidinic site) lyase; N-glycosylase/DNA lyase4; OGG1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Ser31~Gly3 45
Applicable Applications for OGG1 active protein	Activity Assay, Cell Culture
Species	Human
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	7.7
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

IMAGES



Bioactivity

Oxoguanine Glycosylase 1 (OGG1), a prominent member of the BER enzyme family, is an essential DNA repair enzyme. OGG1 is highly conserved across eukaryotic organisms and is expressed in various cell types. Its activity is regulated by several factors, including cellular redox status, DNA damage, and cell cycle progression. In addition to its role in repairing oxidative DNA damage, OGG1 has also been implicated in other cellular processes, such as transcription, replication, and apoptosis. In addition, the combination of OGG1 and NEIL1 can contribute to improve the repair efficiency of oxidative DNA damage, maintain genomic stability, and reduce the risk of cell mutation. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human OGG1 and recombinant human NEIL1. Briefly, biotin-linked OGG1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to NEIL1-coated microtiter wells and incubated for 1h at 37 degree C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50 ul stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human OGG1 and recombinant human NEIL1 was shown in Figure 1, the EC50 for this effect is 0.33 ug/mL.



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for OGG1 active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4587158
NCBI GeneID	4968
UniProt Accession #	O15527; O00390; O00670; O00705; O14876; O95488; P78554; Q9BW42; Q9UIK0; Q9UIK1; Q9UIK2; A8K1E3
Molecular Weight	38,782 Da
NCBI Official Full Name	OGG1 protein type 1b, partial
NCBI Official Synonym Full Names	8-oxoguanine DNA glycosylase
NCBI Official Symbol	OGG1
NCBI Official Synonym Symbols	HMMH; MUTM; OGH1; HOGG1
NCBI Protein Information	N-glycosylase/DNA lyase; AP lyase; OGG1 type 1f; 8-hydroxyguanine DNA glycosylase; DNA-apurinic or apyrimidinic site lyase
UniProt Protein Name	N-glycosylase/DNA lyase
UniProt Gene Name	OGG1
UniProt Synonym Gene Names	MMH; MUTM; OGH1; AP lyase
UniProt Entry Name	OGG1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.