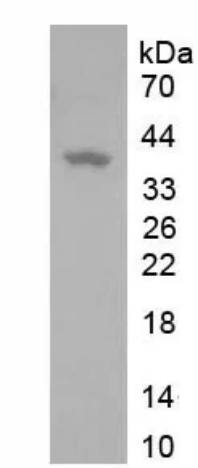
Active Oxoguanine Glycosylase 1 (OGG1)

Catalog#:PEH12859

概述（Summary）

别称（Alternative Names）	HMMH; HOGG1; MUTM; OGH1; 8-Oxoguanine DNA Glycosylase; DNA-(apurinic or apyrimidinic site) lyase; N-glycosylase/DNA lyase
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ser31-Gly345】
Accession #	O15527
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	39.2 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	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.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

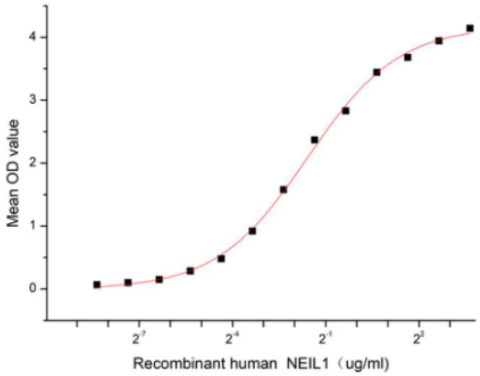


Figure 1. The binding activity of recombinant human OGG1 and recombinant human NEIL1

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℃. 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℃. Finally, add 50 µl 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.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.