
Recombinant Human NEIL1 Protein (His tag)**Cat.NO.: TP07077**

3th Edition

Synonyms:FPG1;hFPG1;NEI1

Description:NEIL1 is a member of DNA glycosylases. DNA glycosylases are a family homologous to the bacterial Fpg/Nei family. They play a role in base excision repair which is the mechanism by which damaged bases in DNA are removed and replaced. The first step of this process is catalyzed by DNA glycosylases. They remove the damaged nitrogenous base while leaving the sugar-phosphate backbone intact, creating an apurinic/aprimidinic site, commonly referred to as an AP site. NEIL1 functions in base excision repair of DNA damaged by oxidation or by mutagenic agents. It acts as DNA glycosylase that recognizes and removes damaged bases. NEIL1 prefers to oxidized pyrimidines, such as thymine glycol, formamidopyrimidine (Fapy) and 5-hydroxyuracil. Has marginal activity towards 8-oxoguanine. It has AP (apurinic/aprimidinic) lyase activity and introduces nicks in the DNA strand and cleaves the DNA backbone by beta-delta elimination to generate a single-strand break at the site of the removed base with both 3'- and 5'-phosphates.

Form:PBS**Molecular Weight:**45 kDa**Sequences:**Met 1-Ser 390**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.