Recombinant Protein Technical Manual

Recombinant Human NEIL1 Protein (His Tag)

RPES2094

Product Data:

Product SKU: RPES2094

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: AAH10876.1

Protein Information:

Molecular Mass: 45 kDa

AP Molecular Mass: 45 kDa

Tag: C-His

Bio-activity:

Purity: > 84 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 50mM Tris, 150mM NaCl, pH 8.0

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: FPG1;hFPG1;NEI1

Immunogen Information:

Sequence: Met 1-Ser 390

Background:

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/apyrimidinic 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/apyrimidinic) 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.