Recombinant Human NEIL1 Protein (His Tag)

Catalog No. PKSH030794

Note: Centrifuge before opening to ensure complete recovery of vial contents.

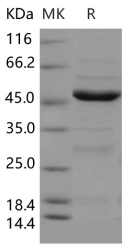
Description

Synonyms	FPG1;hFPG1;NEI1
Species	Human
Expression Host	E.coli
Sequence	Met 1-Ser 390
Accession	AAH10876.1
Calculated Molecular Weight	45 kDa
Observed molecular weight	45 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 84 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80℃. 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 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 84 % as determined by reducing SDS-PAGE.

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

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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.

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