

Datasheet for ABIN3136544
NEIL3 Protein (AA 2-606) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	NEIL3
Protein Characteristics:	AA 2-606
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NEIL3 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), Crystallization (Crys), ELISA

Product Details

Sequence: VEGPGCTLNG EKIRARVLPG QAVTGVRGTA LQSLG PAMS PAASLADVAT SAAPMNAKDS
GWKLLRLFNG YVYSGVETLG KELFMYFGPR ALRIHFGMKG SILINPREGE NRAGASPALA
VQLTRDLICF YDSSVELRNS VESQQRVRVM EELDICS PKF SFSRAESEVK KQGDRMLCDV
LLDQRVLP GV GNI IKNEALF DSGLHPAVKV CQLSDKQACH LVKMTRDFSI LFYRCCKAGS
AISKHCKVYK RPNCDQCHSK ITVCRFGENS RMTYFCPHCQ KENPQCQVQC QLPTRNTEIS
WTPRGEDCFT DSVARKSEEQ WSCVVCTLIN RPSAKACDAC LTTRPLDSVL KNRENSIAFN
NLVKYPCNNF ENTHTEVKIN RKTAFGNTTL VLTDSL NKSS ALARKKRANH TIDGESQMFL
PTDIGFSDSQ HPSKEGINYI TQPSNKVNIS PTVCAQSKLF SSAHKKFKPA HTSATELKSY
NSGLSNS ELQ TNRTRGHHSK SDGSPLCKMH HRRCVLRVVR KDGENKGRQF YACSLPRGAQ
CGFFE WADLS FPF CRH GKRS IMKTVLKIGP NNGKNFFVCP LEKKKQC NFF QWAENGP GME
IVPGC

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a

special request, please contact us.

Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Neil3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Protein is endotoxin free.

Grade:

Crystallography grade

Target Details

Target:	NEIL3
Alternative Name:	Neil3 (NEIL3 Products)
Background:	<p>DNA glycosylase which prefers single-stranded DNA (ssDNA), or partially ssDNA structures such as bubble and fork structures, to double-stranded DNA (dsDNA). In vitro, displays strong glycosylase activity towards the hydantoin lesions spiroiminodihydantoin (Sp) and guanidinohydantoin (Gh) in both ssDNA and dsDNA, also recognizes FapyA, FapyG, 5-OHU, 5-OHC, 5-OHMH, Tg and 8-oxoA lesions in ssDNA. No activity on 8-oxoG detected. Also shows weak DNA-(apurinic or apyrimidinic site) lyase activity. In vivo, appears to be the primary enzyme involved in removing Sp and Gh from ssDNA in neonatal tissues. Seems to be an important facilitator of cell proliferation in certain populations, for example neural stem/progenitor cells and tumor cells, suggesting a role in replication-associated DNA repair. {ECO:0000269 PubMed:20185759, ECO:0000269 PubMed:22065741, ECO:0000269 PubMed:22569481, ECO:0000269 PubMed:22959434, ECO:0000269 PubMed:23305905, ECO:0000269 PubMed:23313161}.</p>
Molecular Weight:	68.2 kDa Including tag.
UniProt:	Q8K203
Pathways:	DNA Damage Repair

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process