

Datasheet for ABIN7564398  
**GEN1 Protein (AA 1-908) (His tag)**



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## Overview

Quantity:	1 mg
Target:	GEN1
Protein Characteristics:	AA 1-908
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GEN1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB)

## Product Details

Purpose:	Custom-made recombinat Gen1 Protein expressed in mammalien cells.
Sequence:	MGVNDLWQIL EPVKQHIHLQ DLSGKTIAVD LSLWVCEAQT VKKMIGTVKK PHLRNLFFRI SYLTQMNVKL VFMERGEPPM LKADVISKRT QTRYGPSGKS RSQKTGRSHF KSVLRECLEM LECLGMPWVQ AAGEAEAMCA YLNASGHVDG CLTNDGDAFL YGAQTVYRNF TMNTKDPHVD CYTISSIKSK LGLDRDALVG LAVLLGCDYL PKGVPGVGKE QALKLLQIFK GQSLLRFNQ WIEDPCYSVP QSAPKKVVHC SVCSHPGSPK DHERNGCILC KSDKYCEPHD YDYLCPCWEH QTDHNRHLSE IENNIKKKAC SCEGFPFHEV IQEFLLNKNK MLKPITYQRP DLLLFQRFTV QKMEWPSHYA CEKLLVLLTR YDMIERKHGR KTSNQLQPIR IVKPRVRNGV HCLEIEWEKP EHYVVEDGDP GKLSLLTMEE ASLFEAAYPD AVAVYQKQLS ETKGRKQKSM KNKPKGSHLP EADDVINSQS LMTLKPTSKA FPKQNPKINL ENSDPILAQ ESTSPSLNSF VSPENAPCLN LQEQLVPSPR TLAIKQSKDV SHFLVSECSQ PSSSSHDISV ITDLQLSTID WAGTSFSNSP AVQRNTFSQD LASESESAI LPDFEQLSYE SEQGTSDEG SGRDLQQSNP EEQLLSGISA

## Product Details

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LHLHDLPLKE RIRIKSSCPQ YNVGADAGLE SLPLKLGKSC IAYSSSDGSS NFSKDLTG VY  
LHKESRNSKV LDSRLQENCG ANTSLPYSFS DKAVKTSSLQ VGLPTAAIPH NPRVAVKTTK  
NLVMKNSVCL ERDSSDEDNA PGSWKSKYTA PEMKHSSQKH SLVHVRDSTH NKLRNPKVES  
KETKLCNESF KTAEDEENG FSDLGRSPQSF RPCHDKDENS TASWENPLPL RQRLKLR FQN  
TQSGFYNT **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

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### Characteristics:

#### Key Benefits:

- Made to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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 try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

GEN1

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### Alternative Name:

Gen1 ([GEN1 Products](#))

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### Background:

Flap endonuclease GEN homolog 1 (EC 3.1.-.-),FUNCTION: Endonuclease which resolves Holliday junctions (HJs) by the introduction of symmetrically related cuts across the junction point, to produce nicked duplex products in which the nicks can be readily ligated. Four-way DNA intermediates, also known as Holliday junctions, are formed during homologous recombination and DNA repair, and their resolution is necessary for proper chromosome segregation. Cleaves HJs by a nick and counter-nick mechanism involving dual coordinated

## Target Details

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incisions that lead to the formation of ligatable nicked duplex products. Cleavage of the first strand is rate limiting, while second strand cleavage is rapid. Largely monomeric, dimerizes on the HJ and the first nick occurs upon dimerization at the junction. Efficiently cleaves both single and double HJs contained within large recombination intermediates. Exhibits a weak sequence preference for incision between two G residues that reside in a T-rich region of DNA. Has also endonuclease activity on 5'-flap and replication fork (RF) DNA substrates. {ECO:0000250|UniProtKB:Q17RS7}.

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Molecular Weight: 101.8 kDa

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UniProt: [Q8BMI4](#)

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Pathways: [DNA Damage Repair](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: 12 months