

# Recombinant Full Length Human APOBEC3A Protein, Tag Free

Cat. No. APOBEC3A-13HFL Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant APOBEC3A (A3A) protein (1-199 aa) that includes full length of human APOBEC3A protein (accession number NP_001180218.1) was expressed in E. coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	1-199 aa
<b>Description</b>	Apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like 3A, also known as APOBEC3A, or A3A is a gene of the APOBEC3 family found in humans, non-human primates, and some other mammals. It is a single-domain DNA cytidine deaminase with antiviral effects. While other members of the family such as APOBEC3G are believed to act by editing ssDNA by removing an amino group from cytosine in DNA, introducing a cytosine to uracil change which can ultimately lead to a cytosine to thymine mutation, one study suggests that APOBEC3A can inhibit parvoviruses by another mechanism. The cellular function of APOBEC3A is likely to be the destruction of foreign DNA through extensive deamination of cytosine.
<b>Tag</b>	Non
<b>Molecular Mass</b>	23.26 kDa
<b>Purity</b>	≥ 90% by SDS-PAGE

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**Storage** Recombinant proteins in solution are temperature sensitive and must be stored at -80 centigrade to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

**Storage Buffer** Recombinant APOBEC3A (A3A) protein is supplied in 25 mM Tris 8.0, 300mM NaCl, 20% glycerol, 0.5 mM TCEP.

## GENE INFORMATION

**Gene Name** [APOBEC3A\\_B APOBEC3A and APOBEC3B deletion hybrid \[ Homo sapiens \(human\) \]](#)

**Official Symbol** [APOBEC3A\\_B](#)

**Synonyms** APOBEC3A\_B; APOBEC3A and APOBEC3B deletion hybrid; A3A; APOBEC3A; probable DNA dC-> dU-editing enzyme APOBEC-3A; DNA dC-> dU-editing enzyme APOBEC-3A; Phorbolin-1; EC 3.5.4.-

**Gene ID** [100913187](#)

**mRNA Refseq** [NM\\_001193289](#)

**Protein Refseq** [NP\\_001180218](#)

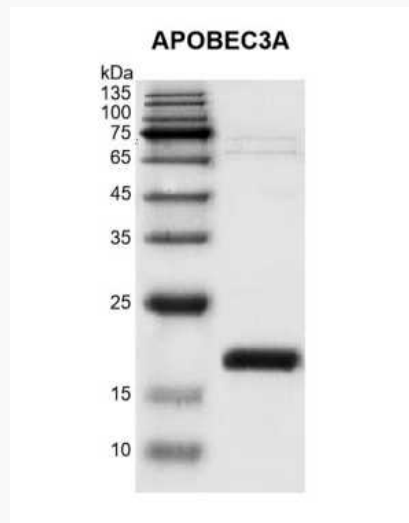
**UniProt ID** [P31941](#)

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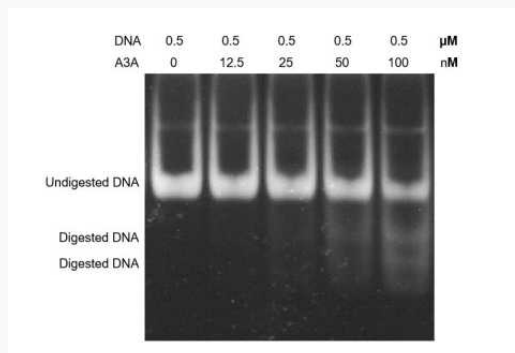
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**Recombinant  
APOBEC3A (A3A)  
SDS-PAGE gel.**



Protein was run on a 12.5% SDS-PAGE gel and stained with Coomassie blue.

**Restriction enzyme-  
based assay for A3A  
activity**



0.5  $\mu$ M of ssDNA oligos (5'-AAACGCAGTGAGCATTCAAATGCGACTGTGCGAAA-3') was incubated with different concentrations of A3A in 50  $\mu$ L reaction system including 20 mM Tris-HCl pH 7.0 and 0.1% Tween-20 for 30 min at 37 centigrade. Then ssDNA oligos were annealed with equimolar of complement strand followed by 1  $\mu$ g Swal digestion for overnight at 25 centigrade. 1/4 reaction products were run on a 20% Native PAGE gel and stained by ethidium bromide.

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