

## New England Biolabs Certificate of Analysis

**Product Name:** Human Alkyladenine Glycosylase (hAAG)  
**Catalog Number:** M0313S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to create an AP site from 1 pmol of a 34-mer oligonucleotide duplex containing a single deoxyinosine site in a total reaction volume of 10 µl in 1 hour at 37°C.  
**Packaging Lot Number:** 10196877  
**Expiration Date:** 06/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl , 100 mM KCl , 1 mM DTT , 0.1 mM EDTA , 0.5 % Tween® 20 , 0.5 % IGEPAL® CA-630 , 50 % Glycerol, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0313S/L v1.0

Human Alkyladenine Glycosylase (hAAG) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0313SVIAL	Human Alkyladenine Glycosylase (hAAG)	10192496	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	10177927	Pass

Assay Name/Specification	Lot # 10196877
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 100 units of hAAG incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 50 units of hAAG incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in ThermoPol® Reaction Buffer containing 1 µg of Lambda-HindIII DNA and a minimum of 100 units of hAAG incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b>	Pass

Assay Name/Specification	Lot # 10196877
hAAG is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	

This product has been tested and shown to be in compliance with all specifications.

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.



Lauren Sears Higgins  
Production Scientist  
09 Jun 2023



Michael Tonello  
Packaging Quality Control Inspector  
16 Jun 2023