

## 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.  
**Lot Number:** 10021290  
**Expiration Date:** 09/2020  
**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)	10020572	Pass
B9004SVIAL	ThermoPol® Reaction Buffer Pack	0031712	Pass

Assay Name/Specification	Lot # 10021290
<b>Protein Purity Assay (SDS-PAGE)</b> hAAG is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	Pass
<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>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>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and	Pass

Assay Name/Specification	Lot # 10021290
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.	

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

*Lauren Higgins*

Lauren Sears Higgins  
Production Scientist  
06 Sep 2018

*Michael Tonello*

Michael Tonello  
Packaging Quality Control Inspector  
14 Sep 2018