sageHLS™
HMW Library System

Lysis Reagents

Kit Products #: HEX-0004 and HEX-0012
HIT-0004 and HIT-0012

Important! Please read before using this kit.

Sage supplies three types of Lysis reagent in the HEX kits. Users must select one Lysis reagent based on downstream sensitivity to residual SDS or the presences of potassium. Information below should be used to select the best option. The reagent types are:

- HLS Lysis Reagent 3% SDS   (**A**)
- HLS Lysis Reagent 1% SDS   (**H**)
- HLS Lysis Reagent 3% Sarkosyl (**G**)

HLS Lysis Reagent 3% SDS (A)

The HLS Lysis Reagent 3% SDS will give the highest HMW DNA recovery, but eluted products will have traces of SDS contamination that may inhibit downstream processes. When using the 3% SDS Lysis reagent, if the DNA products are removed within 1 hour of the end of the run, the level of SDS contamination in the products will be around 0.01-0.013%. If the samples are left in the instrument overnight, the level of SDS contamination will double to 0.02-0.026%.

HLS Lysis Reagent 1% SDS (H)

If the SDS contamination is problematic, users can substitute HLS Lysis Reagent 1% SDS (or HLS Lysis Reagent 3% Sarcosyl) in the Extraction stage. However, DNA yields will be reduced to 25-30% of the yields obtained with the HLS Lysis Reagent 3% SDS reagent. When using the HLS Lysis Reagent1% SDS , if the DNA products are removed within 1 hour of run end, the SDS level in the product will be around 0.001%, and if the products are left in the cassette overnight, the SDS level will be around 0.006-0.009%.

HLS Lysis Reagent 3% Sarkosyl (G)

The HLS Lysis Reagent 3% Sarkosyl is included primarily for workflows in which the input sample contains potassium salts. Potassium salts from the sample will co-precipitate with SDS in the sample well, and the extraction process will fail. Sarkosyl does not co-precipitate with potassium ions and therefore can be used in HLS extraction, although DNA yield is significantly lower (25-30% lower) than that obtained with the HLS Lysis Reagent 3% SDS.