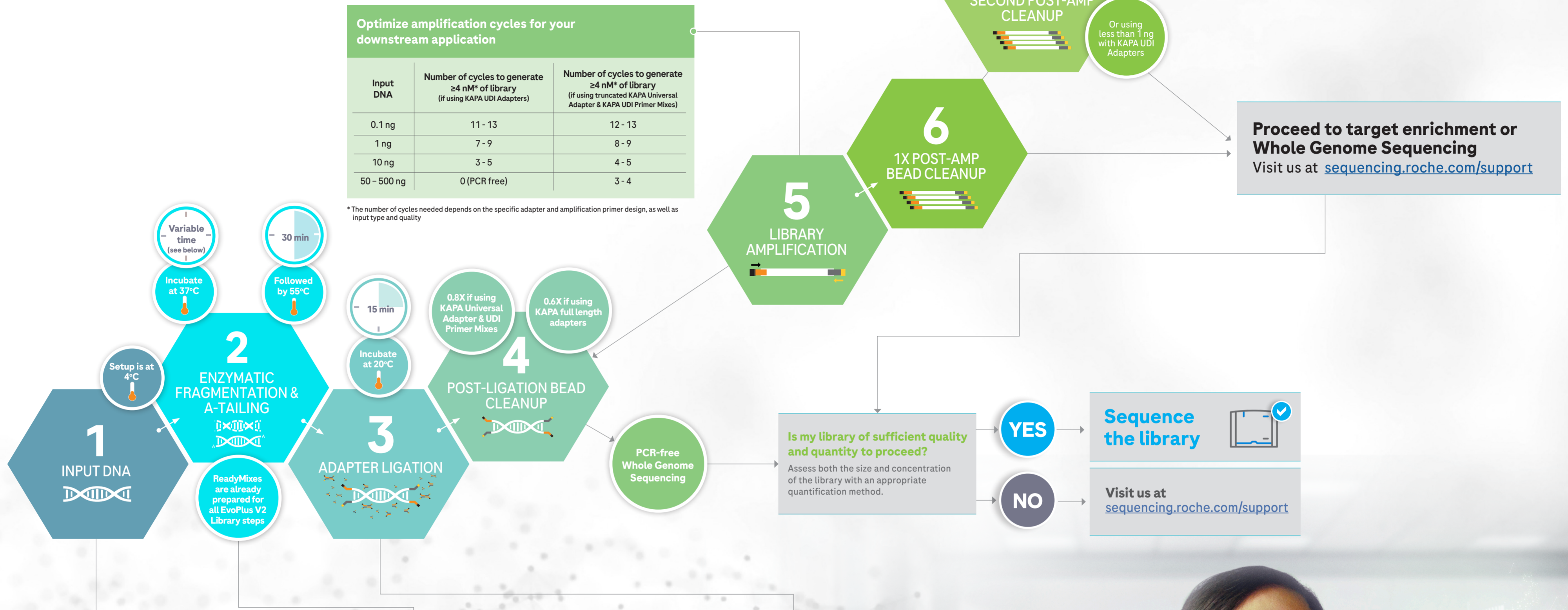


KAPA EvoPlus V2 Kits Guide to Success



Streamlined sample prep workflow using the next evolved generation of KAPA DNA Library Prep Reagents.



How much DNA do I need?

| Application | Sample type | Input |
|----------------|------------------------------|--|
| WGS | High quality gDNA | 0.1 ng - 500 ng |
| | Low quality FFPE-derived DNA | ≥ 50 ng* |
| WGS (PCR-free) | High quality gDNA | ≥ 50 ng (no-SS)** 500 ng (with SS)** |
| | Low quality FFPE-derived DNA | 10 ng - 50 ng |

* Reach out to Technical Support for possible workflow modifications when using this sample type.
** SS = double-sided size selection; a requirement when performing WGS on patterned flow cells but may result in sample losses of 60 - 95%, irrespective of whether a bead- or gel-based technique is used. For PCR-free workflows, due to the inherent sample losses, performing double-sided size selection with inputs < 500 ng (into library prep) is not recommended.

How long should I fragment my DNA for?

- Mode and size distribution of DNA is controlled by fragmentation time and temperature.
- Try a range of fragmentation times to determine optimal insert size.

| Estimated Insert Size* | Fragmentation time at 37°C |
|------------------------|----------------------------|
| 180 bp | 30 min |
| 200 bp | 25 min |
| 250 bp | 20 min |
| 300 bp | 15 min |
| 450 bp | 10 min |
| 500 bp | 5 min |

* Insert sizes (without adapter) observed upon fragmentation of 100 ng of high quality human DNA12878 (Coriell Institute of Biomedical Research). Size variation may be observed, depending on DNA type, DNA input and DNA elution buffers. We recommend optimizing the fragmentation time with a non-precious sample.

How much adapter do I need?

Adapter concentration affects ligation efficiency, as well as adapter and adapter-dimer carry-over during the post-ligation cleanup.

| Input DNA | Recommended KAPA UDI Adapter stock concentration | Recommended KAPA Universal Adapter stock concentration |
|--------------|--|--|
| 0.1 ng | 0.6 μ M | 0.6 μ M |
| 1 ng | | |
| 10 ng | 6 μ M | 15 μ M |
| ≥ 10 ng | 15 μ M | |





For Research Use Only. Not for use in diagnostic procedures.

KAPA and KAPA EVOPLUS are trademarks of Roche.

All other product names and trademarks are the property of their respective owners.