FAQs - Tagify™ i5 UMI Adapter-loaded Transposase

1. What is included in the Tagify i5 UMI reagent set?
    - The standard Tagify i5 UMI 24 reagent set includes: 1x24x3uL of Tn5s (each loaded with a p5, unique UMI, and unique i5) dispensed into a 96-well plate, 1x1.5mL bottle of 3X Coding Buffer, 2x1.2mL bottle of X Solution, and 1x5mL MAGWise magnetic purification beads.
    - Please reach out to sales@seqwell.com if you are interested in other dispensing volumes.

2. How long are the UMIs and the i5s included?
    - The UMI and i5 are 10bp each.

3. What downstream applications can be used after the Tagify i5 UMI reagent?
    - The Tagify i5 UMI reagent is designed for use in a variety of downstream applications that require the addition of a UMI. These reagents may be incorporated as part of targeted sequencing assays, such as UDiTaS[1] or RGen-Seq[2] applications, CRISPR QC, and Cell and Gene Engineering QC. However, commercial use of these reagents in sequencing activities may require a license from a third party.

4. Does the Tagify i5 UMI reagent generate a fully sequencable molecule?
    - The Tagify i5 UMI reagent generates a one-sided tagged fragment and will still need an additional barcode for sequencing.

5. How large of fragments does the Tagify i5 UMI regent generate?
    - The Tagify i5 UMI reagent should generate 800 - 2000 bp fragments when following the standard protocol using 50 ng of high quality gDNA input with the 2µl (Standard 1X) Tagging Reaction.
    - If different fragment sizes are required by your downstream assay, please follow our *Tagify i5 UMI Titration Transposase Reagent and Input DNA Titration* technical note found here: https://seqwell.com/resource-product/tagify-i5-umi-reagents/

6. How many times can each well of the reagent plate be used?
    - Each well in the plate contains enough reagent for 1 reaction.

7. Can less than the full reaction plate be used at once?
    - The reagents have been tested for multiple freeze-thaw cycles without issue. To use less than the full reaction plate of Tagify i5 UMI reagent, it is recommended to use a scalpel or razor blade to only open and peel the heat seal from the wells of the Tagify i5 UMI Reagent Plate corresponding to the total number of samples that will be processed. Please refer to the user guide for more detailed instructions.

8. How do I determine successful use with the Tagify i5 UMI reagent?
    - seqWell defines successful use of the Tagify i5 UMI reagent as tagging 50ng of genomic DNA input to 800-2000bp fragments, measured by the Agilent High Sensitivity DNA Bioanalyzer Chip, when following the standard protocol. You can find an example trace of this fragmentation in the user guide under "Tagged DNA QC & Quantification". Other QC assays and instruments are not supported for this reagent due to significant size discrepancies found when using assays, such as the Agilent TapeStation HS D5000 Screen Tape.
    - If you wish to validate the success of this reagent, we recommend following the standard 1X protocol with 50ng of control human gDNA, such as NA1278, and observing the fragment size on the Bioanalyzer.
    - Please note that, due to the wide variation in potential downstream assays[3], seqWell is unable to support the success of any assay following successful tagmentation with this reagent. To validate the success of non-seqWell assays we recommend following any respective control assays outlined in their methods.

9. What i7 should I use?
    - seqWell has validated a matching set of i7 index sequences that can be used in combination with the i5 indexes included. This can be found on the Tagify i5 UMI master index list on https://seqwell.com/resource-category/index-list/

1. UDiTaS Method: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5861650/
2. RGEN-Seq Method: https://pubmed.ncbi.nlm.nih.gov/34880355/
3. Commercial use of these reagents may require a license from a third party.