

Genomics

DNA Normalization

The Lynx VVP Technology normalizes and entire plate of purified DNA in a single step.

DNA Normalization

Even as automation simplifies DNA purification and quantitation, bottlenecks still form at the steps of DNA normalization and assembly of STR amplification reactions.

The Lynx Liquid Handling Robotic Platform accomplishes DNA normalization using DNA quantitation values to dilute each sample to a standard concentration.

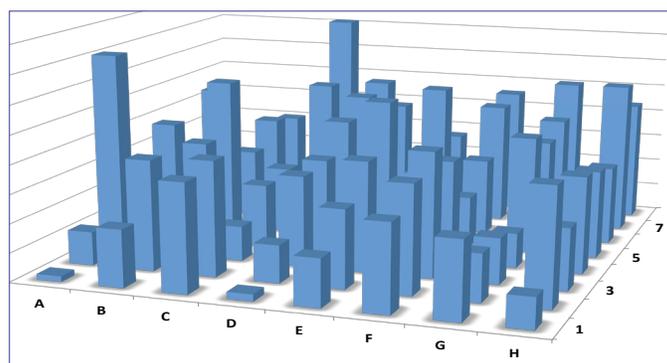
96VVP - 96 Independent Volumes

The 96 VVP Pipetting Tool now allows high throughput DNA normalization by having the ability to dispense 96 different volumes in a single dispense. With a Lynx LM1200 and the 96 VVP Pipetting Tool, hundreds of plates per day may be normalized with a standard run of 10 plates, taking 5 minutes to normalize using a single set of 1250uL tips.

Sample concentrations are obtained from a plate reader performing a 260nm/280nm read in the form of a plate output file. This data file of well concentrations is then converted to well volumes, thus enabling the user to reach a specific target concentration of their choice.

Method Manager 4.0 imports this file (either in .csv or Excel format) which contains volumes to be dispensed to each corresponding well. Diluent is then aspirated by the VVP head corresponding to the variable volumes in the file. The end result is simultaneous dilution of 96 different samples with volume reporting both on the aspirate and dispense. To add another level traceability, plate ID obtained via barcode can further simplify both file handling and sample tracking in a batch scenario.

| | A | B | C | D | E | F |
|---|-----|-----|----|----|-----|----|
| 1 | 4 | 41 | 77 | 5 | 34 | 62 |
| 2 | 24 | 79 | 82 | 27 | 56 | 77 |
| 3 | 142 | 41 | 25 | 65 | 79 | 89 |
| 4 | 34 | 73 | 45 | 67 | 112 | 73 |
| 5 | 76 | 111 | 48 | 87 | 28 | 37 |
| 6 | 43 | 49 | 25 | 98 | 42 | 55 |



Validated & Reported Dilution Volumes

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WVP Data Normalization File Examples.csv - Edited v
,A,B,C,D,E,F,G,H
1,4,41,77,5,34,62,55,22
2,24,79,82,27,56,77,34,83
3,142,41,25,65,79,89,33,44
4,34,73,45,67,112,73,25,69
5,76,111,48,87,28,37,84,63
6,43,49,25,98,42,55,72,56
7,88,66,97,102,99,88,80,109
8,23,60,142,76,54,91,101,87
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