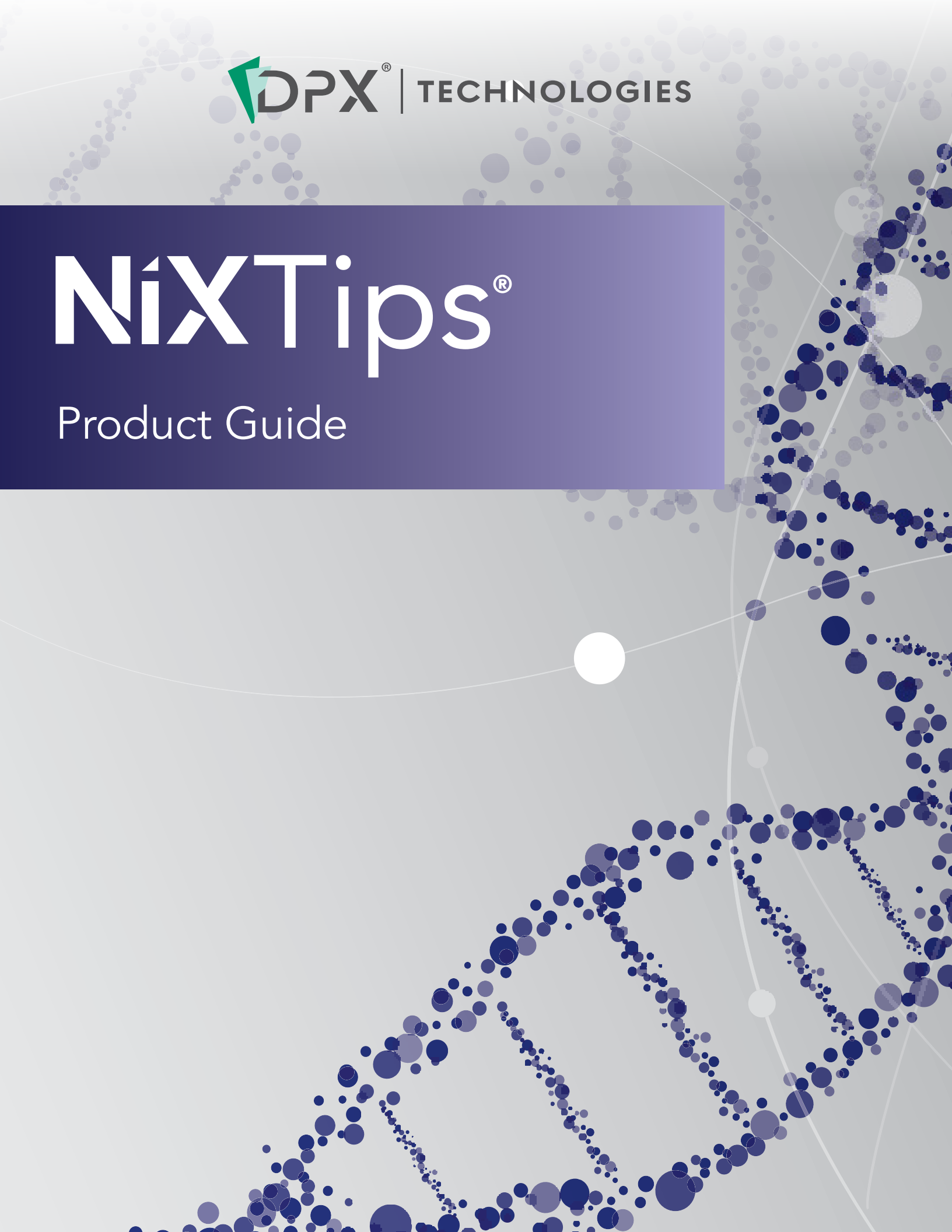
DPX® | TECHNOLOGIES

# NiXTips®

## Product Guide



DPX offers innovative technology for fast and effective genomic sample preparation.

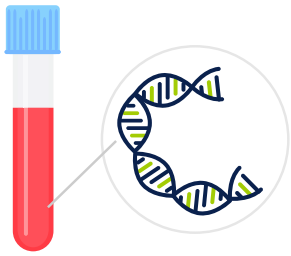
## NiXTips powered by MicroPorous Xtraction (MPX) Technology

MPX technology for genomic sample preparation utilizes proprietary silica media within functionalized pipette tips (NiXTips) to facilitate methods for DNA extraction from biological samples and for PCR cleanup or size selection.

- Eliminate need for ancillary equipment
- No DNA shearing
- Pure sample ready for RT-PCR, NGS and other downstream applications

### Purification

- Cell Cultures
- Whole Blood
- Saliva



### Cleanup

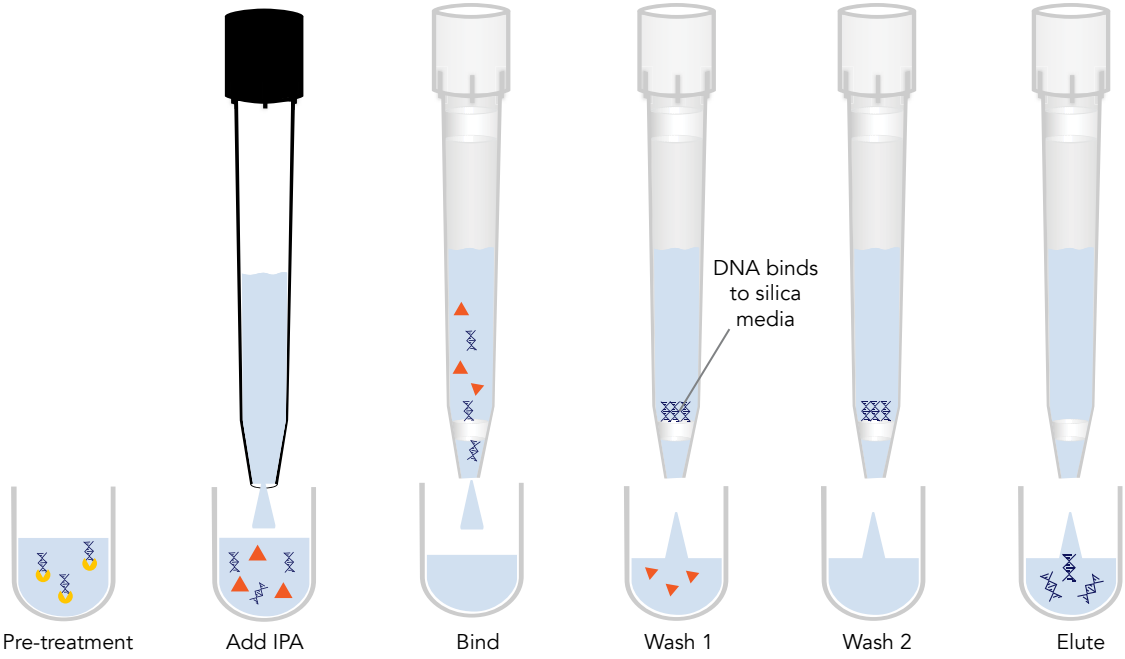
- PCR cleanup
- Size selection
- Double-side size selection

Next Generation Sequencing & Analysis

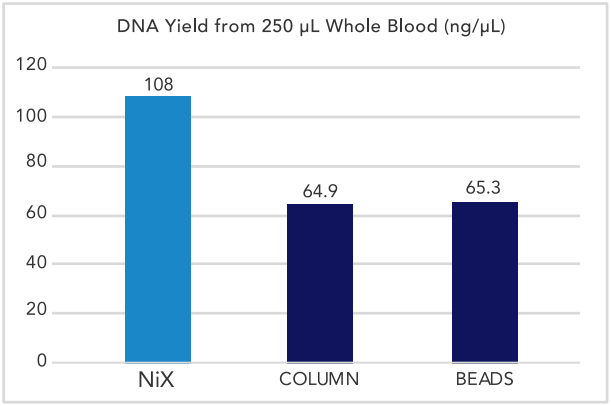
*50 µL Hamilton CO-RE II Format NiXTips shown here*

# INTip nucleic acid purification and cleanup methods streamlined with simple BIND-WASH-ELUTE protocols.

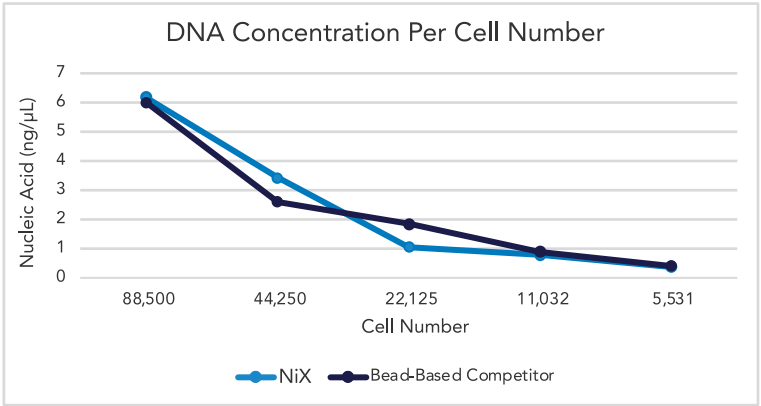
## NiX Methods: Purification




*Example protocol for DNA extraction from biological samples. DPX methods results in high yields up to 43 µg genomic DNA depending on sample type, sample volume, and tip format.*




*Direct comparison of average DNA yields from 250 µL of blood with DPX method for isolation using 1 mL NiXTips versus the leading bead-based and column-based competitior kits*

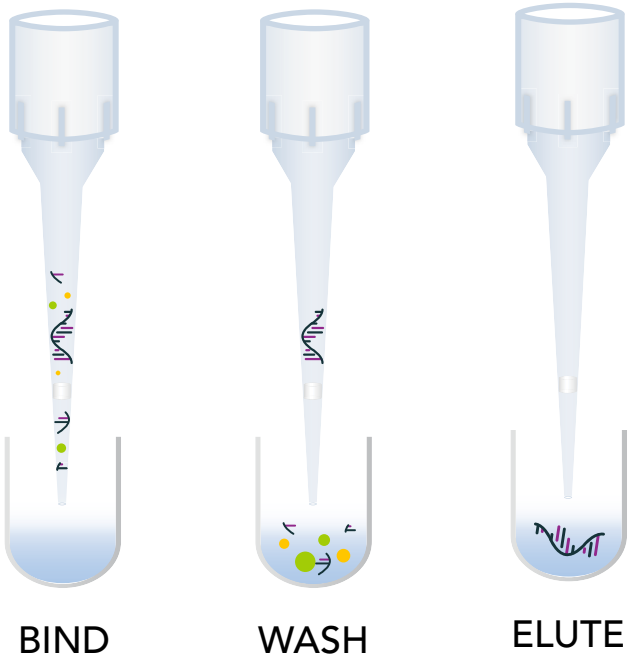



*Comparison of gDNA yields (ng/µL or total ng) from 300 µL NiXTips vs. bead-based method across the 5 dilutions, based on qPCR data from QuantStudio 3.*

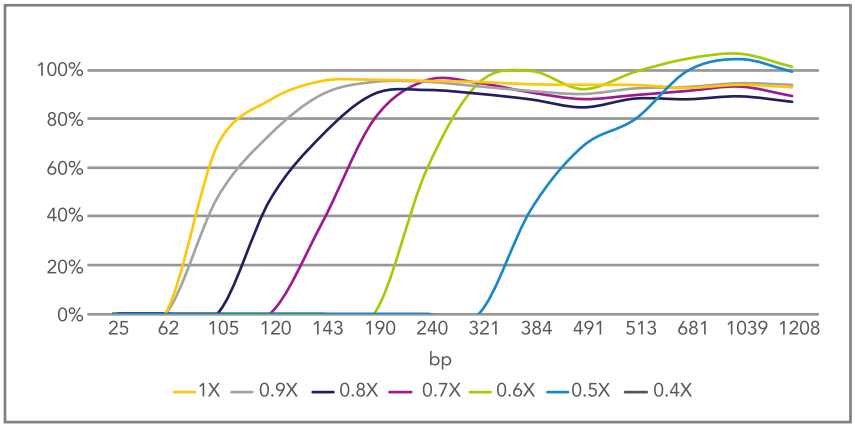
# NiX Methods: Cleanup

## PCR Cleanup & Size Selection

Solid Phase Reversible Immobilization (SPRI) is commonly used for purifying and size selecting nucleic acids. NiXTips proprietary microporous media and buffer system allows for fast and effective removal of primers, primer-dimers, dNTPs, unincorporated labeled nucleotides, enzymes, and salts from PCR and other reaction mixtures.

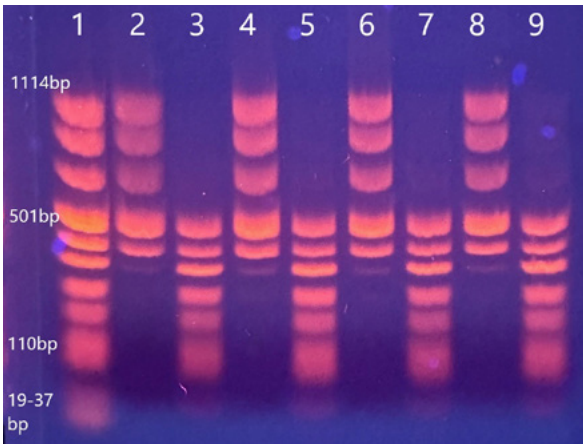



### Left Side Size Selection



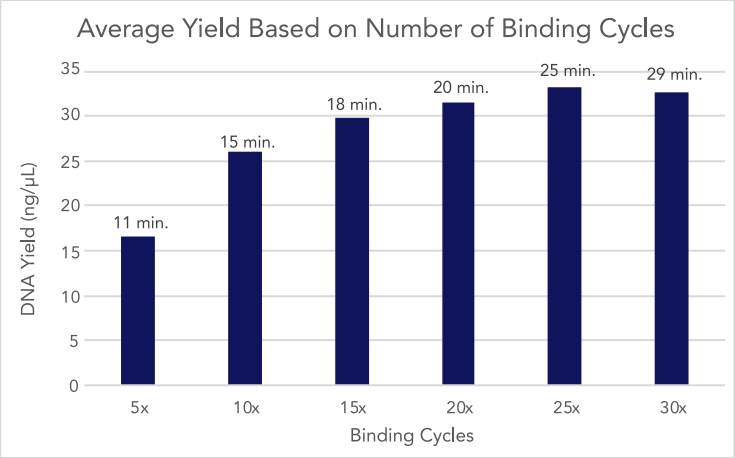

*Percent recovery of DNA fragments at different binding buffer to sample ratios using 50 µL NiXTip formation shown here. Size selection may be impacted by master mix and tip format.*

### Quality Assurance



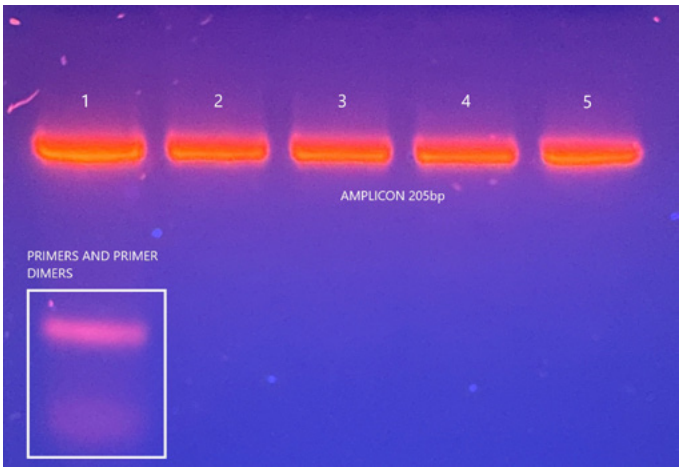

*Gel electrophoresis of double-sided size selection using NiXTips. Lane 1 is DNA MWM VIII. Lanes 2, 4, 6, and 8 show DNA fragments bound to the NiXTip at 0.5X binding buffer to sample ratio. Lanes 3, 5, 7, and 9 show DNA fragments bound to a second NiXTip when the same samples are brought up to 0.8X binding buffer to sample ratio.*

## Average Yield




*Recovery of DNA MWM VIII in ng/µL with different (5, 10, 15, 20, 25, 30) aspirate/dispense cycles (binding cycles).*

## Quality Assurance




*Gel electrophoresis of PCR products before (lane 1) and after NiXTip cleanup (lanes 2-5).*

# How to Order

## NiXTips Applications

NiXTips are compatible with major liquid handling robotic platforms. NiXTips are sold in matrix-specific kits for DNA extraction and prep kits for cleanup methods, including necessary buffers. Contact us for custom method development for applications not listed.

- DNA Isolation from Cell Culture
- DNA Isolation from Whole Blood
- DNA Isolation from Saliva
- PCR Cleanup, Library Prep., Size Selection

Hamilton Format kit shown here.

### HAMILTON

| Tip Size | Application |
|---|---|
| 50 µL<br>96 tips/rack | ● |
| 300 µL<br>96 tips/rack | ● ● ● |
| 1 mL<br>96 tips/rack | ● ● ● |

### INTEGRA

| Tip Size | Application |
|---|---|
| 125 µL<br>384 tips/box | ● ● ● |
| 300 µL<br>96 tips/rack | ● ● ● |
| 1250 µL<br>96 tips/rack | ● ● ● |

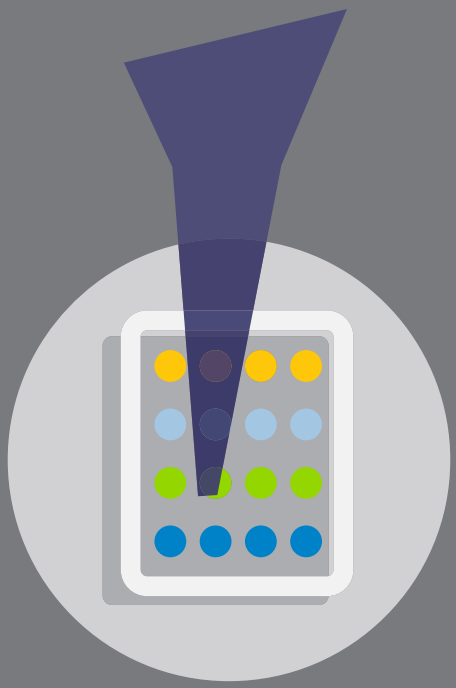
### Agilent Technologies

| Tip Size | Application |
|---|---|
| 70 µL<br>384 tips/box | ● |

### TECAN

| Tip Size | Application |
|---|---|
| 200 µL<br>96 tips/rack | ● ● ● |

*Tecan style tips coming soon.*



dpxtechnologies.com