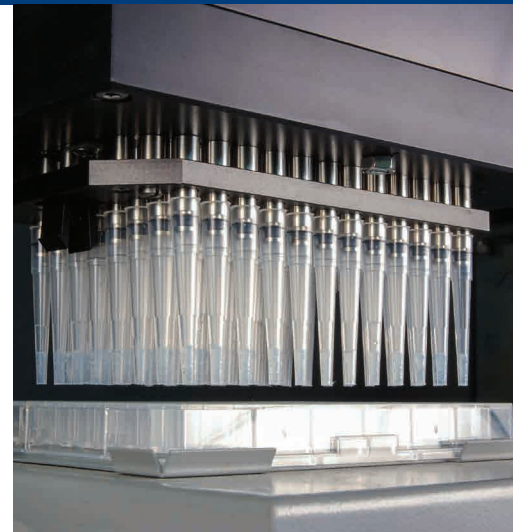


ProPlus PhyTip® Columns

High capacity and broad range antibody purification

PhyNexus ProPlus PhyTip columns combine our patented dual flow chromatography technology for pipette tip columns with the benefits of MabSelect™ SuRe™ antibody affinity resin. This combines attributes of both small volume, high throughput, automated purification with the industry leading antibody purification resin for superior purification results.

- » High Performance
- » Minimum Dilution
- » High Throughput
- » Small Volume Samples
- » Scalable
- » Reproducible



ProPlus columns combined with the efficiency of PhyNexus' dual flow chromatography technology

- » Capture, purify and enrich in as little as 15 minutes to obtain high concentrations of fully functional protein
- » At least 10% higher capacity than Protein A resins
- » 3–5 fold greater recovery than Protein G
- » Broad range of selectivity, recognizing various isotypes and species, similar to Protein G
- » Elution volumes as low as 10 µL, producing enrichment factors as high as 50 fold, with concentrations of purified protein of up to 10 mg/mL

ProPlus IgG Binding Capacity

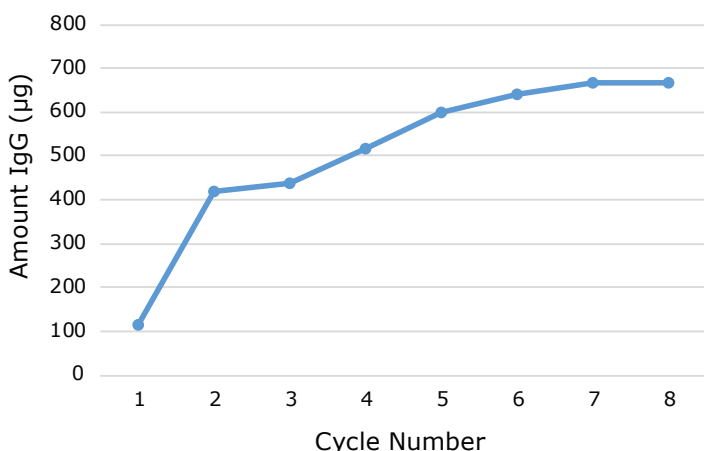


Figure 1
Binding Capacity of 20 µL Bed ProPlus PhyTip® Column

1 mL of PhyTip® columns containing 20 µL of ProPlus (MabSelect™ Sure) resin was used to purify IgG from porcine serum. The total amount of IgG purified was quantified at different numbers of aspiration/dispense cycles by UV-Vis Abs @280 nm. The 20 µL bed columns approach a capacity greater than 650 µg (or 32.5 µg per µL of resin) with only 8 mix cycles.

ProPlus vs. ProG Selectivity and Yield

Mouse Hybridoma Samples	ProG Total µg	ProPlus Total µg	Factor Increase
1 0.05mg/mL mIgG ₁ , low bovine IgG media	11.9	41.6	x 3.5
2 0.05mg/mL mIgG ₁ , 10% FBS IgG media	12.4	52.6	x 4.2
3 mIgG ₁ clone expressor, low bovine IgG media	15.4	25.5	x 1.7
4 mIgG ₁ clone expressor, 10% FBS IgG media	26.6	68.5	x 2.6
5 (-) control, low bovine IgG media	1.9	7.1	
6 (-) control, 10% FBS IgG media	2.3	5.4	
Average fold greater recovery:			3

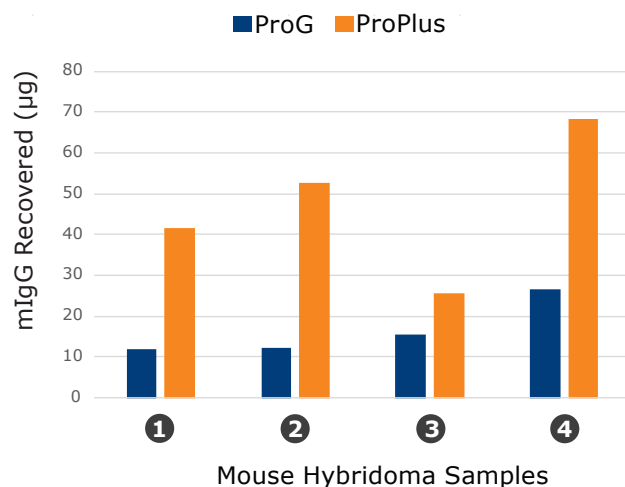


Figure 2
ProPlus Selectivity of Mouse Hybridoma IgG Versus ProG

Different types of mouse IgG samples were processed by both 20 µL ProPlus and ProG columns to demonstrate the selectivity of ProPlus columns for the purpose of screening mouse hybridoma samples. The ProPlus columns are able to enrich 3 fold greater recoveries compared to ProG. The samples were eluted in pH 2.5 citrate buffer and quantified through reverse-phase HPLC with detection by UV at 214 nm.

ProPlus PhyTip® Columns

Tip Volumes	Resin Volumes
200 (µL)	5 (µL)
300 (µL)	10 (µL)
500 (µL)	20 (µL)
1000 (µL)	40 (µL)
	80 (µL)
	160 (µL)
	320 (µL)

To learn more, visit
www.phynexus.com/proplus

Robotics Compatibility

PhyTip® columns can be used with all major 8, 12, and 96-channel automation liquid handling robots including Agilent Technologies, Beckman Coulter, Dynamic Devices, Hamilton, Opentrons, Perkin Elmer, and Tecan

