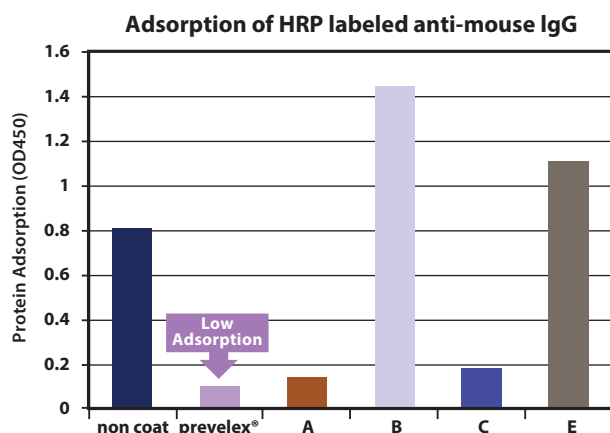


prevelex® AP1

Ultra thin film coating that suppresses adhesion of protein, peptides, and low molecular substances on a variety of substrates

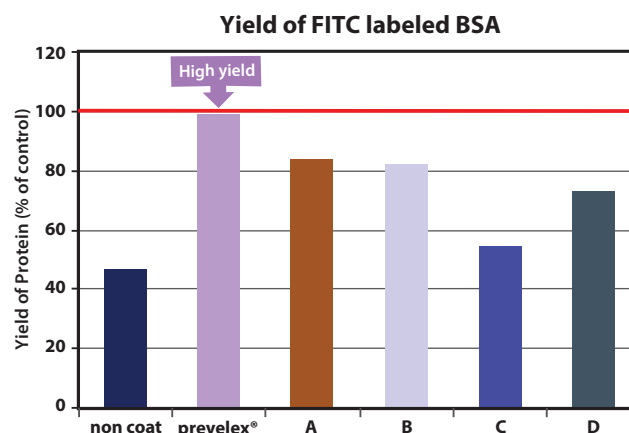
- prevelex® coating neutralizes surface energy, inhibits non-specific binding and develops a hydrophilic membrane on the surface for efficient recovery of biomaterials
- Uniform Conformal coating of nanometer order. Coating thickness between ~5 and ~10 nm
- Effective with a wide variety of substrates, Substrates include titer plates, microflow channels, cell culture flasks, conical tubes, deep well plates, substrates made of PS, PP, PDMS, COP and glass vials for storing bio-medicine
- 3 step coating process: Coat > Dry > Wash
- Safe for clinical use
- **Applications—prevelex® AP1 coating is applicable for the following:**
 - To store rare and small bio samples on plates, in tubes and flow channels
 - To prevent adsorption of protein, peptide, select low molecular substances and exosome on a wide variety of substrates
 - To culture cells with rare growth factors
 - To coat hollow fiber, filter, unwoven fabric for bio-separation

Anti-Protein (HRP labeled anti-mouse IgG) Adsorption Properties



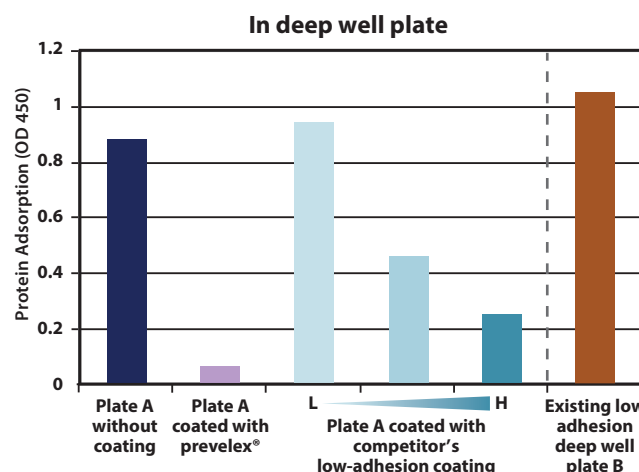
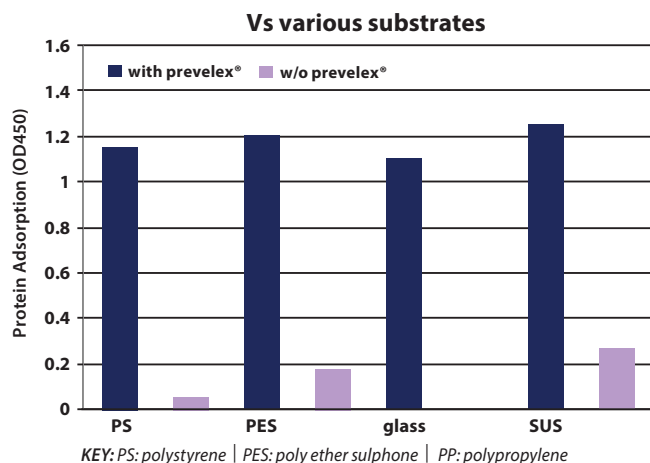
A - E represent existing 1.5 ml PP tubes

PERFORMANCE COMPARISON-PP TUBE-1

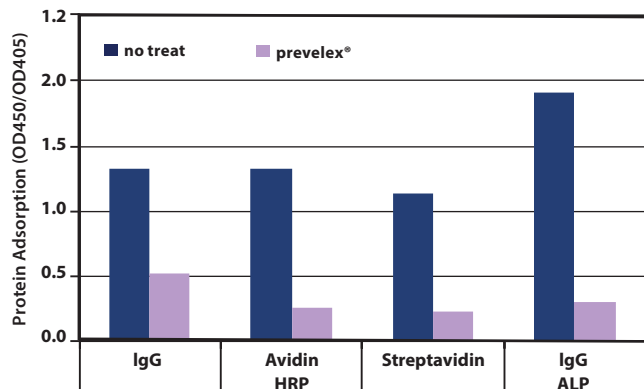


A - D represent existing 1.5 ml PP tubes

PERFORMANCE COMPARISON-PP TUBE-2

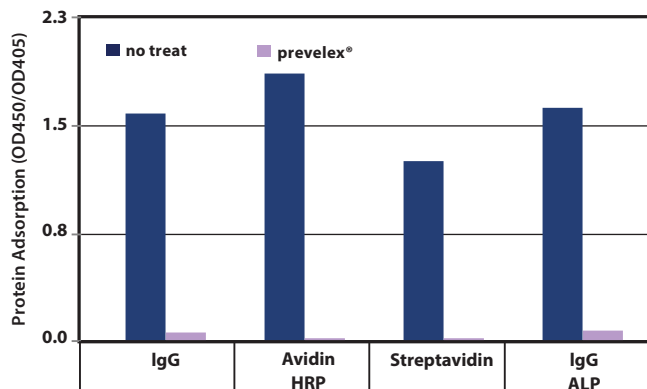


Anti-Protein Adsorption Effects vs Various Proteins



KEY: HRP: 40kDa | OD450 | ALP: 80 kDa | OD405

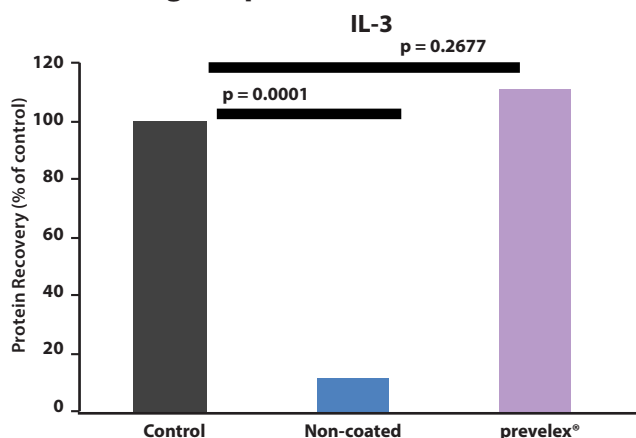
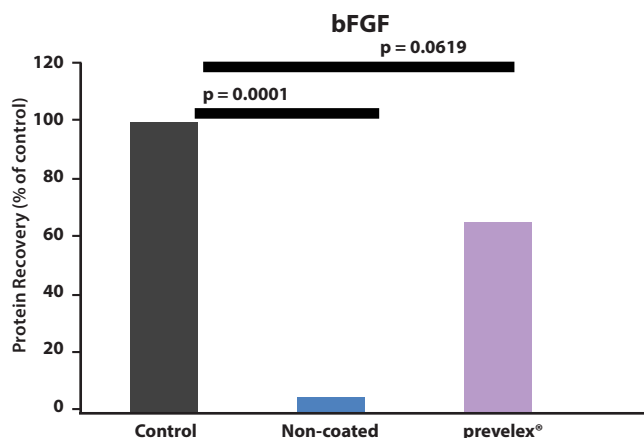
PERFORMANCE COMPARISON ON PP DEEP-WELL PLATE



KEY: HRP: 40kDa | OD450 | ALP: 80 kDa | OD405

PERFORMANCE COMPARISON ON PS FLAT-BOTTOM CULTURE PLATE

Adhesion Test of Cell Growth Factor (glass plates)



prevelex® inhibited the adhesion of bFGF and IL-3

Resistance Properties (on PP)

	1h			5h		
	10%	50%	100%	10%	50%	100%
MeOH	○	○	○	○	○	○
EtOH	○	○	×	○	○	×
Acetonitrile	○	△	○	○	△	○
Acetone	○	○	○	○	○	△
DMSO	○	○	○	○	○	○

Detergent	0.1%	1%
SDS	○	○
Triton X-100	NT	○
Tween20	NT	○

NOTE: auto claving depends on PP grade
 ○ good
 △ average
 × poor

Sterilization		Thermal Stability	
EOG	○	95°C (boil), 10min	○
y-ray (15kGy)	○	120°C (Auto clave*), 20min	×

pH		pH2	pH3	pH4	pH5	pH6	pH7	pH8	pH9	pH9.58	pH11	pH12
HCl+EtOH	PBS	H ₂ PO ₄ /NaH ₂ PO ₄	CH ₃ COOH/CH ₃ COONa	NaH ₂ PO ₄ /Na ₂ HPO ₄			HCl/C ₄ H ₁₁ NO ₃ (Tris)		Na ₂ HPO ₄ /Na ₃ PO ₄			
X	○	○	○	○	○	○	○	○	△	△	△	△

Acute Toxicity (Mouse Oral)	LD50:	>2000 mg/kg
AMES Test		negative

y-ray sterilized polymer