# **SKYLUX<sup>™</sup> Low-Protein-Binding-PP**

# Less Lost Protein For More Reliable Proteomics





## **Proteomics & Protein research**

- \* Proteomic is a growing field of interest.
- To study protein function is often possible to know the effect of a particular protein on development or a physiological function by introducing it into an organism.
- \* The rising impact of proteomics on clinical and industrial research, academic and research institutions are integrating proteomics as an important parts of their course curriculum.



## **Protein Research**

SKYLUX is trademark of DragonChem Limited

A major issue faced is the loss of protein to polypropylene tubes, as well to other plastic containers.



Chart : https://www.semanticscholar.org



## A study found :

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#### Protein adsorption properties are varies on different plastic resins



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Chart : https://jpharmsci.org

## Study Result : Protein recovery rate is low at 20%

#### on an untreated PP storage tube after 96 hours

Protein recovery rate test of untreated PP storage tube



## **Innovative product**

SKYLUX is trademark of DragonChem Limited

SKYLUX Low-Protein-Binding Polypropylene(PP) Resin is developed by DragonChem Limited

With SKYLUX Low-Protein-Binding-PP Resin, protein recovery rate of consumables for proteomics and protein research could be maximized and consequently protein loss could be minimized

## **Benefits with SKYLUX Low-Protein-Binding-PP**

- ✓ No post-treatments are deeded on end-products
- No additives are needed on consumable manufacturing
- Conventional injection machines can be used
- Conventional mold can be used
- ✓ PFAS-free & Phthalates-free
- Low extractables



#### Innovative Technology (Patent Pending)



To Handling



Operations

#### Innovative technology : Test Result

Protein Stain Quick Test for 10minutes (The darker color the more protein residual are )



Tube made of SKYLUX LP810

Low Protein Binding Tube in the market



Innovative technology : Test Result

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## BSA Adsorption Study on chip samples







Innovative technology : Test Result

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## BSA Adsorption Study on chip samples

(concentration: 0.124g/ml)

Test by : AVI







#### Innovative technology : Test Result

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#### BSA Adsorption Study (Average result of 10 tubes)

(BSA Concentration : 1mg/ml)



Innovative technology : Test Result

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#### Nanodrop BSA Recovery Study on 1.5ml tubes



#### Innovative technology : Test Result

SKYLUX is trademark of DragonChem Limited



Bradford BSA Recovery Study on 1.5ml tubes

Innovative technology : Test Result

#### Quantitative Fluorescence Analysis

Recovery rate of proteins after incubation for 24h in low binding tubes (4°C) (1µg/ml FITC-lgg)



- **SKYLUX PP**
- **Competitor A**
- **Competitor B**
- **Untreated PP**

**DragonChem Limited** 

Innovative technology : Test Result

**Quantitative Fluorescence Analysis** 

Recovery rate of proteins after incubation for 24h in low binding tubes (RT) (1µg/ml FITC-lgg)



#### Selection of SKYLUX Low Protein Binding PP

| Grade No. | Melt Flow* | HDT(℃) | Potential applications                             |
|-----------|------------|--------|--|
| LP801     | 1          | 60     | Large size reagent bottle/tank                     |
| LP810     | 10         | 95     | Microfluidic chip/kit, Centrifuge tubes/containers |
| LP818G    | 15         | 95     | Gamma resistant IVD & laboratory consumables       |
| LP833     | 33         | 86     | IVD & laboratory consumables                       |
| LP525G    | 25         | 117    | Gamma resistant IVD consumables                    |
| LP675     | 73         | 117    | Filter cartridge, Deep well plates                 |

\* g/10 min., 230°C/2.16kg



## **Application of SKYLUX Low Protein Binding PP**

## 1.5ml & 2.0ml Low Protein Binding Micro Centrifuge Tubes



Source : www.bangfeibio.com

made with SKYLUX LP810

#### **Characteristics :**

- ✓ High protein sample recovery rate
- ✓ Free of surface coating
- ✓ Free of DNA、DNase、Rnase
- ✓ Free of PCR inhibitors
- ✓ Centrifuge speed up to 30,000RCF
- ✓ Autoclavable & Disposable



## Potential application of SKYLUX Low Protein Binding PP

# Preparation and/or Storage for **Proteins, Peptides, Antibodies ...**



Photo: http://proteomicsnews.blogspot.com, www.pasteur-kh.org







## Potential application of SKYLUX Low Protein Binding PP

## Housing of Low Protein Binding Cartridge/Syringe Filters



for better performance



Photo : www.jetbiofil.com



Photo : http://www.hqoptimalfilters.com

## Potential application of SKYLUX Low Protein Binding PP

## **Consumables for protein purification and isolation researches**













## Potential application of SKYLUX Low Protein Binding PP



## Immune Cell & Stem Cell storage :

To ensure the function and activity of the cells are not significantly affected



### Application development of SKYLUX Low Protein Binding PP

for your need !









**Collaboration** 

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