ProteinArk

Products & Services 2020

Distributed by

lubio science

Your distributor in Switzerland

LubioScience GmbH
Baumackerstrasse 24
8050 Zürich
Phone 041 417 02 80 info@lubio.ch
Fax 041 417 02 89 www.lubio.ch

Contents

I. Chromatography Columns 3

i. HiFliQ FPLC Columns 3

ii. Proteus 1-step Batch Spin Column 5

iii. Proteus FliQ FPLC Columns 5

iv. ProteoSEC Columns 6

v. Proteus Detergent Exchange Mini Spin Columns 7

II. Loose Resins 8

i. Fastback – Ni IMAC, Co IMAC, Q IEX, S IEX, Protein A, Protein G 8

ii. Super – NiNTA, CoNTA, Heparin, GST 10

iii. NoEndo™ 11

III. Sample Preparation 11

i. Proteus Mini Clarification Spin Columns 11

ii. Proteus X-Spinner Ultrafiltration Concentrators 12

IV. Electrophoresis 13

i. Realtime Stain, AcuteBand Pre-stained Protein Ladder 13

ii. QuickBlue Protein Stain 13

iii. Elite DNA Ladder, Agarose Tablets, Magnite Green DNA Stain 15

V. Proteus Spin Column Kits - Protein A, Protein G, Ni IMAC, NoEndo 16

VI. Protein Expression Reagents 16

i. IPTG – Ultrapure, 1M Solution 16

ii. TCEP Reducing Agent 17

VII. Custom Services – Custom Column Packing, De novo & Bulk Antibody Growth, Custom Protein Expression 17

VIII. Optima PRO – Protein Purification & De-salting Plates 18

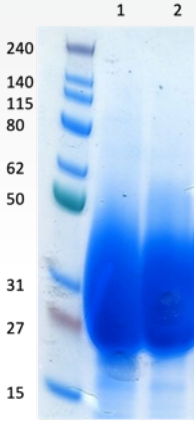
Featured Product - Fastback Ni Advance Resin

Fastback Ni Advance Resin designed for faster purification of secreted proteins using clarified culture media directly

- Ideal for secreted proteins and all intracellular protein expression
- Works in your protocol, regardless of sample origin whether eukaryotic (insect, yeast, HEK293 or CHO) and bacteria (*E.coli*)
- Great results faster with fewer steps than conventional workflow - no need to buffer exchange your conditioned media; simply load clarified culture media directly onto the Ni Advance resin column
- Keep your buffer in its preferred conditions as Fastback Ni Advance resin is resistant to EDTA (up to 20mM) and DTT (up to 20 mM)
- Also available in HiFliQ pre-packed format (1 ml and 5 ml)

Performance Data:

Comparison between Protein Ark Ni Advance resin and GE Ni Excel resin



Data provided by Qamar S at Cambridge Institute for Medical Research (CIMR), University of Cambridge, July 2019.

Figure 1. His- tagged secreted glycosylated protein directly captured from 1 litre of Expi293 culture medium with 5.0ml of each resin (diffused bands due to protein glycosylation).

Protein marker used: Protein Ark Elite Pre-stained Protein Ladder (Cat#PAL-EPL-500).

Lane 1: GE Ni Excel Resin

Lane 2: Protein Ark Fastback Ni Advance Resin

Catalogue Numbers:

Description	Order No	Description	Order No
HiFliQ Ni Advance FPLC columns (1 x 1ml)	HiFliQ1Ni-Adv-1	Fastback Ni Advance Resin (10 ml)	Fastback-Ni-Adv-10
HiFliQ Ni Advance FPLC columns (5 x 1ml)	HiFliQ1Ni-Adv-5	Fastback Ni Advance Resin (25 ml)	Fastback-Ni-Adv-25
HiFliQ Ni Advance FPLC columns (1 x 5ml)	HiFliQ5-Ni-Adv-1	Fastback Ni Advance Resin (100 ml)	Fastback-Ni-Adv-100
HiFliQ Ni Advance FPLC columns (5 x 5ml)	HiFliQ5-Ni-Adv-5		

I. Chromatography Columns

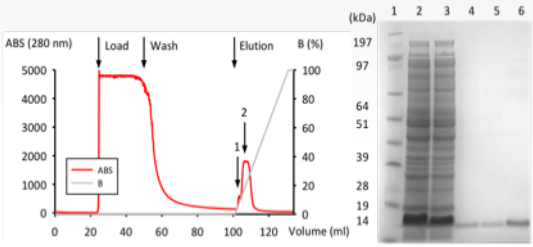
HiFliQ FPLC Columns

- Fast and reliable affinity purification
- Pre-packed 1 ml and 5 ml columns
- Protein A, Protein G, Ni-NTA, Co-NTA, and GST affinity resins
- For use with FPLC, peristaltic pumps and syringes

Performance Data:

Purification of His-tagged protein from *E.coli* lysate on:

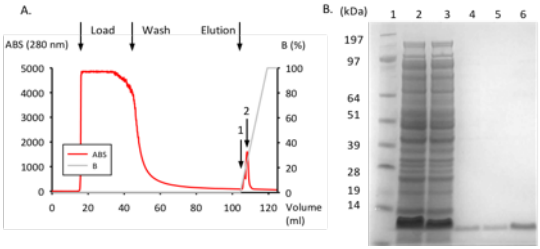
1 ml HiFliQ **Ni-NTA** FPLC Column



(A) FPLC chromatogram

(B) SDS-PAGE analysis. SDS-PAGE using NuSep nUView 4-20% gradient, Quick Coomassie stained. 1. MW marker, 2. *E.coli* lysate, 3. Flow-through, 4. Wash pool, 5. Elution (1), 6. Elution (2).

1 ml HiFliQ **Co-NTA** FPLC Column



(A) FPLC chromatogram

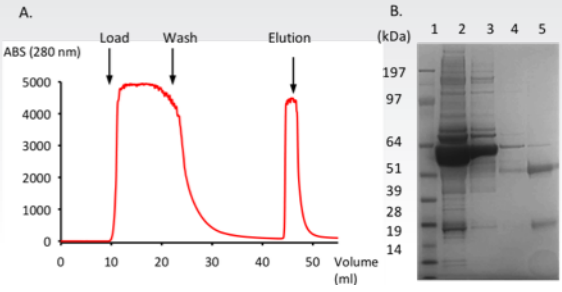
(B) SDS-PAGE analysis. SDS-PAGE using NuSep nUView 4-20% gradient, Quick Coomassie stained. 1. MW marker, 2. *E.coli* lysate, 3. Flow-through, 4. Wash pool, 5. Elution (1), 6. Elution (2).

Catalogue Numbers:

Description	Order No	Description	Order No
HiFliQ Ni-NTA FPLC columns (1 x 1ml)	HiFliQ1-NiNTA-1	HiFliQ Co-NTA FPLC columns (1 x 1ml)	HiFliQ1-CoNTA-1
HiFliQ Ni-NTA FPLC columns (5 x 1ml)	HiFliQ1-NiNTA-5	HiFliQ Co-NTA FPLC columns (5 x 1ml)	HiFliQ1-CoNTA-5
HiFliQ Ni-NTA FPLC columns (1 x 5ml)	HiFliQ5-NiNTA-1	HiFliQ Co-NTA FPLC columns (1 x 5ml)	HiFliQ5-CoNTA-1
HiFliQ Ni-NTA FPLC columns (5 x 5ml)	HiFliQ5-NiNTA-5	HiFliQ Co-NTA FPLC columns (5 x 5ml)	HiFliQ5-CoNTA-1

Performance Data:

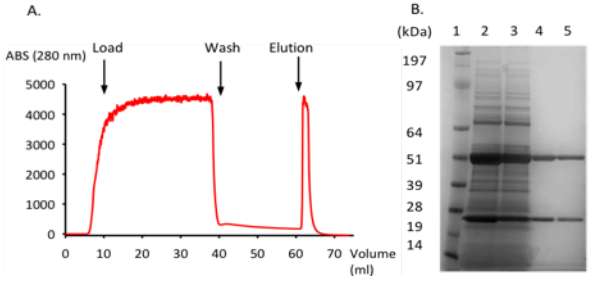
Purification of rabbit IgG's from serum on a 1 ml HiFliQ **Protein A** FPLC Column.



(A) FPLC chromatogram

(B) SDS-PAGE analysis. SDS-PAGE using NuSep nUView 4-20% gradient, Quick Coomassie stained. 1. MW marker, 2. Rabbit serum, 3. Flow-through, 4. Wash pool, 5. Eluted IgG.

Purification of murine IgG_1 from cell culture supernatant on a 1 ml HiFliQ **Protein G** FPLC Column.



(A) FPLC chromatogram

(B) SDS-PAGE analysis. SDS-PAGE using NuSep nUView 4-20% gradient, Quick Coomassie stained. 1. MW marker, 2. Rabbit serum, 3. Flow-through, 4. Wash pool, 5. Eluted IgG_1.

Catalogue Numbers:

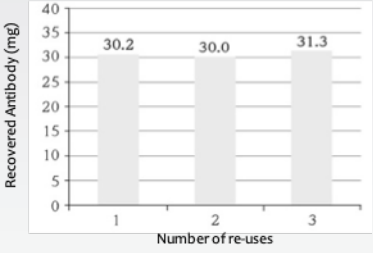
Description	Order No	Description	Order No
HiFliQ Protein A FPLC columns (1 x 1ml)	HiFliQ1-PA-1	HiFliQ Protein G FPLC columns (1 x 1ml)	HiFliQ1-PG-1
HiFliQ Protein A FPLC columns (5 x 1ml)	HiFliQ1-PA-5	HiFliQ Protein G FPLC columns (5 x 1ml)	HiFliQ1-PG-5
HiFliQ Protein A FPLC columns (1 x 5ml)	HiFliQ5-PA-1	HiFliQ Protein G FPLC columns (1 x 5ml)	HiFliQ5-PG-1
HiFliQ Protein A FPLC columns (5 x 5ml)	HiFliQ5-PA-5	HiFliQ Protein G FPLC columns (5 x 5ml)	HiFliQ5-PG-1
HiFliQ Heparin FPLC columns (1 x 1ml)	HiFliQ1-HEP-1	HiFliQ Protein GST FPLC columns (1 x 1ml)	HiFliQ1-GST-1
HiFliQ Heparin FPLC columns (5 x 1ml)	HiFliQ1-HEP-5	HiFliQ Protein GST FPLC columns (5 x 1ml)	HiFliQ1-GST-5
HiFliQ Heparin FPLC columns (1 x 5ml)	HiFliQ5-HEP-1	HiFliQ Protein GST FPLC columns (1 x 5ml)	HiFliQ5-GST-1
HiFliQ Heparin FPLC columns (5 x 5ml)	HiFliQ5-HEP-5	HiFliQ Protein GST FPLC columns (5 x 5ml)	HiFliQ5-GST-5
HiFliQ Q-type FPLC columns (1 x 1ml)	HiFliQ1-Q-1	HiFliQ S-type FPLC columns (1 x 1ml)	HiFliQ1-S-1
HiFliQ Q-type FPLC columns (5 x 1ml)	HiFliQ1-Q-5	HiFliQ S-type FPLC columns (5 x 1ml)	HiFliQ1-S-5
HiFliQ Q-type FPLC columns (1 x 5ml)	HiFliQ5-Q-1	HiFliQ S-type FPLC columns (1 x 5ml)	HiFliQ5-S-1
HiFliQ Q-type FPLC columns (5 x 5ml)	HiFliQ5-Q-5	HiFliQ S-type FPLC columns (5 x 5ml)	HiFliQ5-S-5

Proteus 1-step Batch Spin Columns

- Simple columns for protein purification
- Compatible with any chromatography resin
- Utilizes proprietary SelfSeal™ advantage for controlling residence time
- Final product: highly concentrated purified protein

Performance Data:

Graph showing the typical IgG capacity of a Protein A '1-step batch' spin column after 3 re-uses using unclarified rabbit serum.



The serum was incubated for 20 min in batch mode on a roller and the purified IgG was then eluted using centrifugation at 200 g for 2 min.

Catalogue Numbers:

Description	Volume	Pack Size	Order No
Proteus 1-step Batch Mini	600 µl	40	GEN-1SBM-40
Proteus 1-step Batch Mini	600 µl	100	GEN-1SBM-100
Proteus 1-step Batch Midi Plus	20 ml	8	GEN-1SB08P

Proteus FliQ FPLC Columns

- Empty 1, 5, 10 and 20 ml FPLC columns designed for self-packing
- FPLC & HPLC compatible
- Compatible with any chromatography resin
- Slash your chromatography columns costs

Catalogue Numbers:

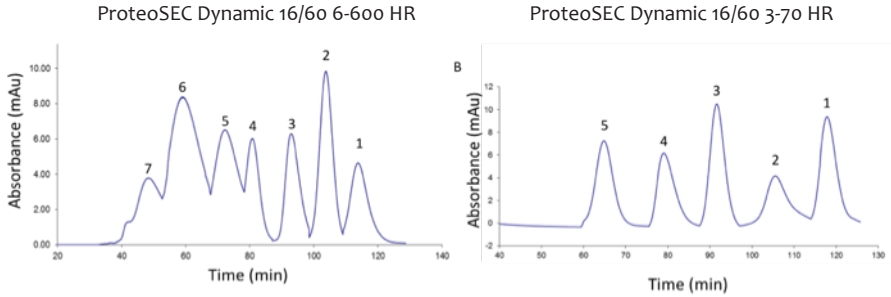
Description	Volume	Pack Size	Order No
Proteus FliQ Column	1 ml	1	GEN-FliQ1
Proteus FliQ Column	5 ml	1	GEN-FliQ5
Proteus FliQ Column	10 ml	1	GEN-FliQ10
Proteus FliQ Column	20 ml	1	GEN-FliQ20

ProteoSEC Dynamic Columns

- 11/30, 16/60 & 26/60 size exclusion columns for AKTAs
- Resin is a co-polymer of dextrose and agarose for identical Superdex™ S75 & S200 performance
- Packed with 3-70 kDa and 6-600 kDa high resolution preparative grade resin for self-packing

Performance Data:

Separation of test substances on a ProteoSEC Dynamic 16/60 6-600 HR gel filtration column (A) and ProteoSEC Dynamic 16/60 3-70 HR gel filtration column (B).



Flowrate: 1 ml/min; sample loading 0.5 ml; mobile phase: PBS (phosphate buffered saline).

A. Model proteins 1: Aprotinin (M_r 6 500); 2: Cytochrome c (M_r 12 300); 3: Beta-Lactoglobulin (M_r 35 000); 4: BSA (M_r 67 000); 5: gamma-Globulin IgG (M_r 158 000); 6: Apoferritin (M_r 440 000); 7: Thyroglobulin (M_r 669 000).

B. Model proteins 1: Vit B-12 (M_r 1 200); 2: Aprotinin (M_r 6 500); 3: Cytochrome c (M_r 12 300); 4: Beta-Lactoglobulin (M_r 35 000); 5: BSA (M_r 67 000).

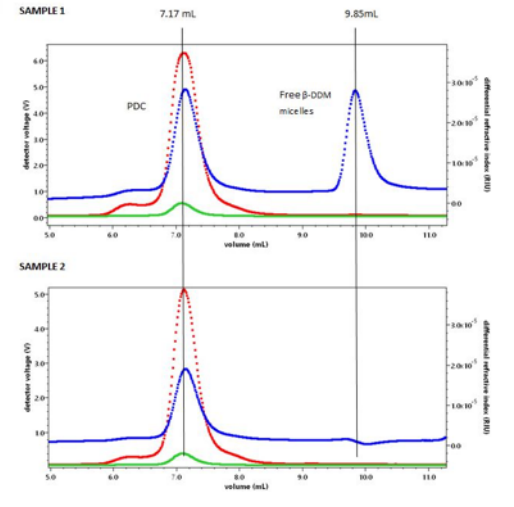
Catalogue Numbers:

Description	Size	Pack Size	Order No
ProteoSEC Size Exclusion Column 11/30 3-70 HR AKTA Dynamic Column	11/30	1	SEC-D-11/30-3-70
ProteoSEC Size Exclusion Column 16/60 3-70 HR AKTA Dynamic Column	16/60	1	SEC-D-16/60-3-70
ProteoSEC Size Exclusion Column 26/60 3-70 HR AKTA Dynamic Column	26/60	1	SEC-D-26/60-3-70
ProteoSEC Size Exclusion Column 11/30 6-600 HR AKTA Dynamic Column	11/30	1	SEC-D-11/30-6-600
ProteoSEC Size Exclusion Column 16/60 6-600 HR AKTA Dynamic Column	16/60	1	SEC-D-16/60-6-600
ProteoSEC Size Exclusion Column 26/60 6-600 HR AKTA Dynamic Column	26/60	1	SEC-D-26/60-6-600

Proteus Detergent Exchang Mini Spin Columns

- Designed for rapid and effective removal of free detergent micelles and complete detergent exchange
- D-Type anion exchange spin columns are optimized for membrane proteins with pI <7-8 in complex with non-ionic or zwitterionic detergents
- The C-Type cation exchange spin columns are optimized for membrane proteins with pI >7-8 screening expression clones
- Ideal for applications such as ELISA, IEF, MS and NMR which suffer from interference with excess detergents

Performance Data:



SAMPLE 1: Dimeric Photosystem II (PSII) membrane protein concentrated 273 times.

Note the free detergent micelles eluting at 9.85 ml.

SAMPLE 2: SAMPLE 1 after elution from the Proteus Detergent Anion Exchange Mini Spin Column with 75 mM $MgSO_4$ in detergent-depleted buffer.

Note the effectiveness of the Proteus spin columns to eliminate free detergent micelles.

Catalogue Numbers:

Description	Pack Size	Order No
Proteus Detergent Anion Exchange Mini Spin Column Trial pack (4 pc)	4	PAL-MINI-4
Proteus Detergent Anion Exchange Mini Spin Column Kit pack (20 pc)	20	PAL-MINI-20
Proteus Detergent Cation Exchange Mini Spin Column Trial pack (4 pc)	4	PCL-MINI-4
Proteus Detergent Cation Exchange Mini Spin Column Kit pack (4 pc)	20	PCL-MINI-20

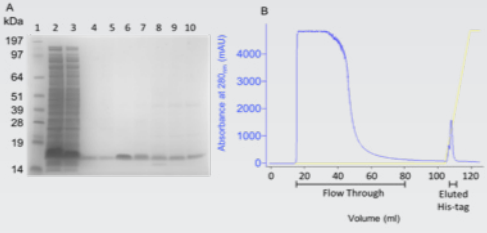
II. Fastback & Super Chromatography Resins

Affinity Chromatography Resins

- Fastback Protein A & G resins for antibody purification
- DTT tolerate Ni-NTA, Co-NTA and Glutathione-NTA Agarose
- Gold standard in recombinant protein purification
- High binding capacity at the right price
- NoEndo™ Resin for specific endotoxin removal (from 100 µl to 5 litres)

Fastback Performance Data:

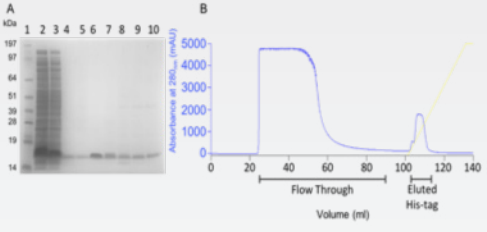
Recombinant His-tagged protein purified from *E.coli* lysate using Protein Ark **Fastback Co Resin packed in 1ml HiFliQ** and analyzed via Nu-PAGE >95%.



A. 1. Markers, 2. Starting material, 3. Flow-through, 4. Wash, 5. Elution (1), 6. Elution (2), 7. Elution (3), 8. Elution (4), 9: Elution (5), 10: Elution (6).

B. Chromatogram of gradient purification.

Recombinant His-tagged protein purified from *E.coli* lysate using Protein Ark **Fastback Ni Resin packed in 1ml HiFliQ** and analyzed via Nu-PAGE >95%.



A. 1. Markers, 2. Starting material, 3. Flow-through, 4. Wash, 5. Elution (1), 6. Elution (2), 7. Elution (3), 8. Elution (4), 9: Elution (5), 10: Elution (6).

B. Chromatogram of gradient purification.

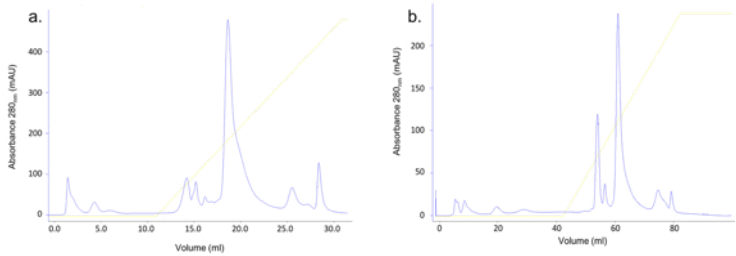
Catalogue Numbers:

Description	Order No	Description	Order No
Fastback Nickel IMAC Resin 10 ml	Fastback-Ni-10	Fastback Cobalt IMAC Resin 10 ml	Fastback-Co-10
Fastback Nickel IMAC Resin 25 ml	Fastback-Ni-25	Fastback Cobalt IMAC Resin 25 ml	Fastback-Co-25
Fastback Nickel IMAC Resin 100 ml	Fastback-Ni-100	Fastback Cobalt IMAC Resin 100 ml	Fastback-Co-100

Fastback Performance Data:

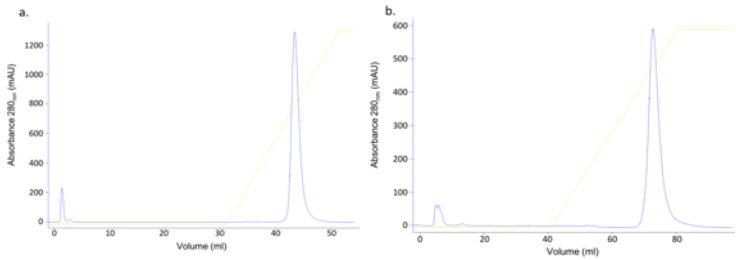
Purification of Protein X from *E.coli* lysate:

1) Using Protein Ark **Fastback Q Resin** packed in 1 ml (a) and 5 ml (b) HiFliQ columns.



0.1 ml of *E.coli* lysate was treated with 10 mg/ml of BSA and applied to 1 ml (a) and 5 ml (b) HiFliQ Q-type FPLC columns to purify Protein X. An elution gradient of 0-1 M NaCl over 20 CV was used to separate and elute proteins. Protein X was eluted at an elution gradient of ~0.4 M NaCl (1 ml HiFliQ) and ~0.45 M NaCl (5 ml HiFliQ).

2) Using Protein Ark **Fastback S Resin** packed in 1 ml (a) and 5 ml (b) HiFliQ columns.



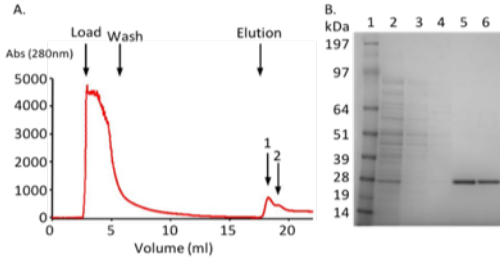
0.1 ml of *E.coli* lysate was treated with 10 mg/ml of BSA and applied to 1 ml (a) and 5 ml (b) HiFliQ Q-type FPLC columns to purify Protein X. An elution gradient of 0-1 M NaCl over 20 CV was used to separate and elute proteins. Protein X was eluted at an elution gradient of ~0.65 M NaCl (1 ml HiFliQ) and ~0.85 M NaCl (5 ml HiFliQ).

Catalogue Numbers:

Description	Order No	Description	Order No
Fastback Q IEX Resin 10 ml	Fastback-Q-10	Fastback S IEX Resin 10 ml	Fastback-S-10
Fastback Q IEX Resin 25 ml	Fastback-Q-25	Fastback S IEX Resin 25 ml	Fastback-S-25
Fastback Q IEX Resin 100 ml	Fastback-Q-100	Fastback S IEX Resin 100 ml	Fastback-S-100
Fastback Protein A Resin 1 ml	Fastback-PA-1	Fastback Protein G Resin 1 ml	Fastback-PG-1
Fastback Protein A Resin 5 ml	Fastback-PA-5	Fastback Protein G Resin 5 ml	Fastback-PG-5
Fastback Protein A Resin 25 ml	Fastback-PA-25	Fastback Protein G Resin 25 ml	Fastback-PG-25
Fastback Protein A Resin 100 ml	Fastback-PA-100	Fastback Protein G Resin 100 ml	Fastback-PG-100

Super Performance Data:

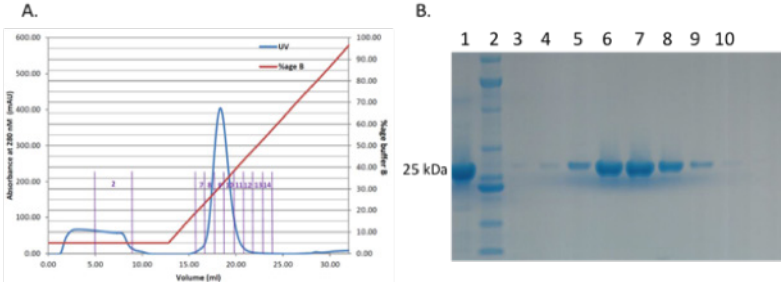
Purification of GST-tagged protein from *E.coli* lysate on a 1 ml HiFliQ GST FPLC column (**SuperGlu** resin).



A. FPLC chromatogram

B. SDS-PAGE analysis. 1. MW marker, 2. *E.coli* lysate, 3. Flow-through, 4. Wash pool. 5. Elution (1), 6. Elution (2).

Purification of DNA-binding protein from *E.coli* lysate on a 1 ml HiFliQ Heparin FPLC column (**Super-HEP** resin).



A. FPLC chromatogram

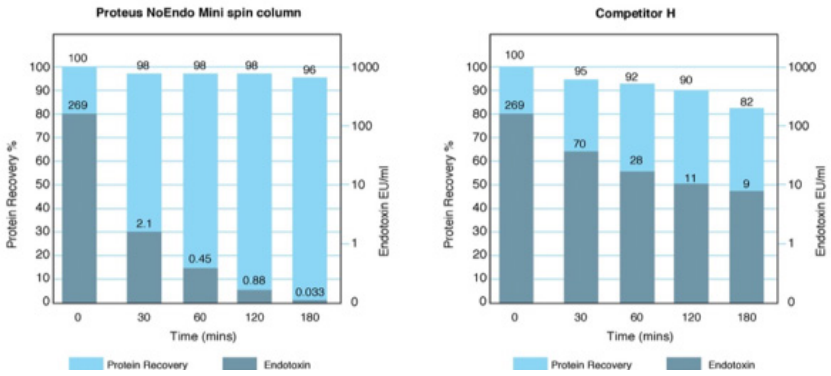
B. SDS-PAGE of purification fractions using NuPage Gel (4-12% gradient), stained with Quick Coomassie. 1. *E.coli* lysate, 2. MW marker, 3. Flow-through, 4. Elution (7), 5. Elution (8), 6. Elution (9), 7. Elution (10), 8. Elution (11), 9. Elution (12), 10. Elution (13).

Catalogue Numbers:

Description	Order No	Description	Order No
Super Heparin HP Resin 10 ml	Super-HEP10	Super Glutathione HP Resin 10 ml	SuperGlu10A
Super Heparin HP Resin 25 ml	Super-HEP25	Super Glutathione HP Resin 25 ml	SuperGlu25A
Super Heparin HP Resin 100 ml	Super-HEP100	Super Glutathione HP Resin 100 ml	SuperGlu100A
Super Heparin HP Resin 250 ml	Super-HEP250		
Super Ni-NTA HP Resin 10 ml	Super-NiNTA10	Super Co-NTA HP Resin 10 ml	Super-CoNTA10
Super Ni-NTA HP Resin 25 ml	Super-NiNTA25	Super Co-NTA HP Resin 25 ml	Super-CoNTA25
Super Ni-NTA HP Resin 100 ml	Super-NiNTA100	Super Co-NTA HP Resin 100 ml	Super-CoNTA100

NoEndo™ Performance Data:

Proteus NoEndo™ Mini spin column vs competitor product using lactoferrin spiked with *E. coli* lysate.



Catalogue Numbers:

Description	Pack Size	Order No
NoEndo™ Resin	25 ml	GEN-NoE025ML
NoEndo™ Resin	100 ml	GEN-NoE100ML

III. Sample Preparation

Proteus Mini Clarification Spin Columns

- Ideal for HPLC/FPLC sample preparation
- Clarifying small volumes between 10-650 µl
- Small dead-stop-volume < 5 µl
- Lowest protein binding PVDF membrane
- First all standard microfuges

Catalogue Numbers:

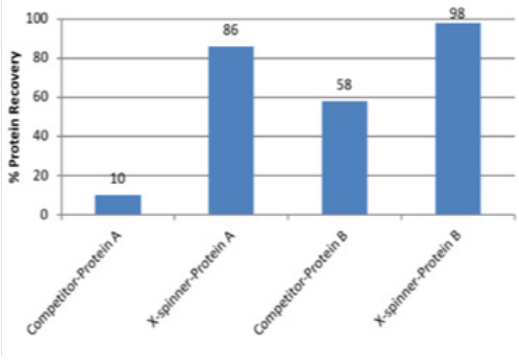
Description	Pack Size	Order No
Proteus Mini Clarification Spin Columns	100	GEN-MSF500

Proteus X-spinner Ultrafiltration Concentrators

- 2.5 ml non-stick UF concentrator to provide the highest possible protein recoveries guaranteed
- Available in 5, 10, 20, 100 & 300 kDa MWCOs
- Ideal for dilute or viscous samples, and sticky/hydrophobic proteins

Performance Data:

Percent of protein recovery is improved with the **Proteus X-spinner 2.5**.



Up to 98% protein recoveries were observed with 2.5 ml hydrophobic protein concentrated to 0.25 ml at 2 500 g.

Catalogue Numbers:

Description	MWCO	Pack Size	Order No
Proteus X-spinner 2.5 (5 kDa MWCO, CTA)	5 kDa	24	PAL-X-5-24
Proteus X-spinner 2.5 (5 kDa MWCO, CTA)	5 kDa	96	PAL-X-5-96
Proteus X-spinner 2.5 (10 kDa MWCO, CTA)	10 kDa	24	PAL-X-10-24
Proteus X-spinner 2.5 (10 kDa MWCO, CTA)	10 kDa	96	PAL-X-10-96
Proteus X-spinner 2.5 (20 kDa MWCO, CTA)	20 kDa	24	PAL-X-20-24
Proteus X-spinner 2.5 (20 kDa MWCO, CTA)	20 kDa	96	PAL-X-20-96
Proteus X-spinner 2.5 (100 kDa MWCO, PES)	100 kDa	24	PAL-X-100-24
Proteus X-spinner 2.5 (100 kDa MWCO, PES)	100 kDa	96	PAL-X-100-96
Proteus X-spinner 2.5 (300 kDa MWCO, PES)	300 kDa	24	PAL-X-300-24
Proteus X-spinner 2.5 (300 kDa MWCO, PES)	300 kDa	96	PAL-X-300-96

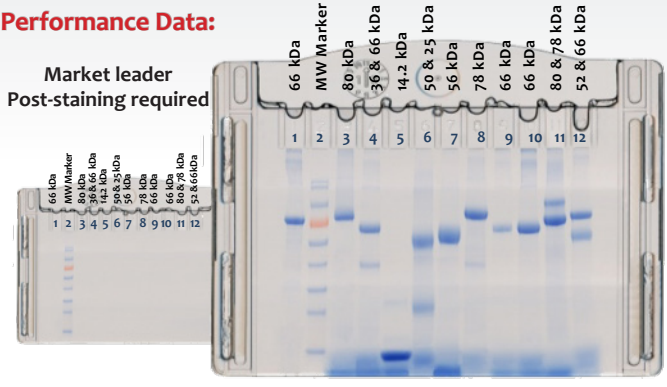
IV. Electrophoresis

Realtime Stain

- Unique and revolutionary pre-stain for SDS-PAGE
- Visualise your samples as they run
- Quick 'look and see' SDS-PAGE

Performance Data:

Market leader
Post-staining required



Example gels: NuSep Tris-Glycine 4-20% SDS PAGE. Run using standard method (left) and **Realtime stain** (right). Images taken in cassette directly after running.

Catalogue Numbers:

Description	Pack Size	Order No
Realtime stain	0.2 ml	GEN-RT-STAIN-200
Realtime stain	2 ml	GEN-RT-STAIN-2000

AcuteBand Pre-stained Protein Ladder

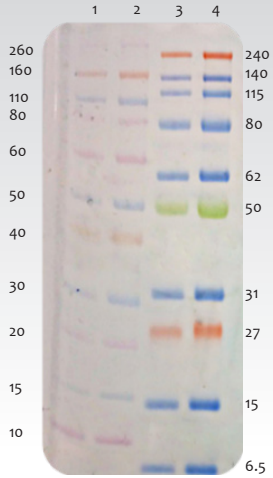
- High-intensity, 3-colour MW determination
- Ultra-clear and expanded MW range (6.5-270 kDa)
- Up to 100% electro-transfer efficiency*

Performance Data:

4-12 % Bis-Tris MES SDS

› Lanes 1 & 2: Novex Sharp (ThermoFisher)
› Lanes 3 & 4: AcuteBand Protein Ladder

***Qamar S, Cambridge Institute for Medical Research, Cambridge, UK, October 2018.**

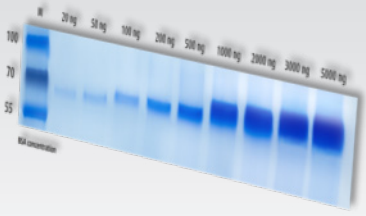


Catalogue Numbers:

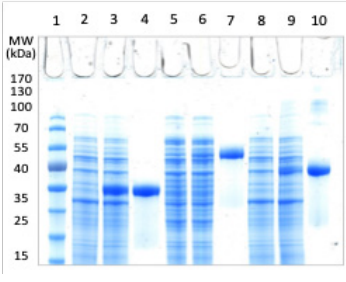
Description	Pack Size	Order No
AcuteBand Pre-stained Protein Ladder (0.5 ml)	2 x 0.25 ml	LU5001-0500
AcuteBand Pre-stained Protein Ladder (2.5 ml)	10 x 0.25 ml	LU5001-2500

QuickBlue Protein Stain

- Rapid protein stain for SDS-PAGE
- Protein bands in minutes
- Reusable up to 3 times
- Single step procedure

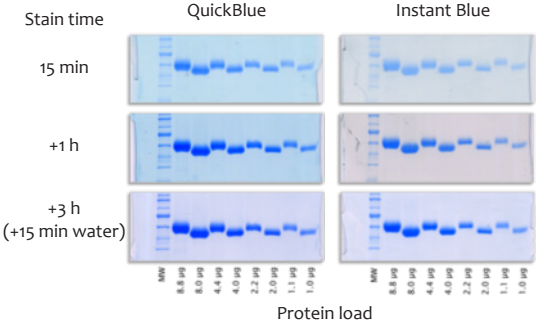


Performance Data:



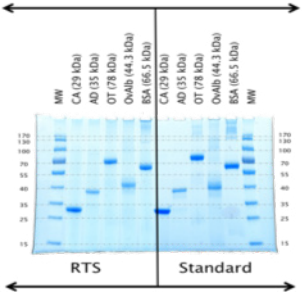
12% NuSep Tris-Gly gel stained with our QuickBlue Stain. Analysis of soluble bacterial lysate in the absence or presence of three different soluble proteins in comparison to the purified protein.

Laminin protein fragment (lanes 2-4), Lactoferrin (lanes 5-7), and Bovine Serum Albumin (lanes 8-10).



QuickBlue Stain vs Instant Blue. Rapid testing. Faster than the leading competitor.

Gel stained with QuickBlue



Realtime stain vs QuickBlue stain.
Realtime stain labelling 10 mins at 80-100C.

- Optimal labelling conditions
- Optimal denaturation
- Optimal reducing
- Optimal molecular weight

Catalogue Numbers:

Description	Pack Size	Order No
QuickBlue Protein Stain (1 L)	1 L	LU001000

Elite DNA Ladders

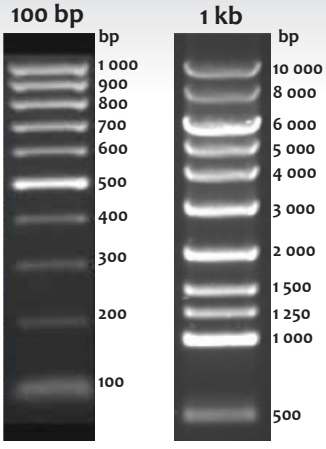
- Ready-to-load DNA ladders
- Premixed with loading dye and ready to use
- Clear band separation for accurate size determination

100 bp ladder:

- 10 bands ranging from 100 to 1 000 bp
- High intensity reference band at 500 bp

1 kb ladder:

- 11 bands ranging from 500 to 10 000 bp
- High intensity reference band at 1 000 bp



Catalogue Numbers:

Description	Pack Size	Order No
Elite 100 bp DNA Ladder (100 µl)	100 µl	PAL-E-100BP-100
Elite 100 bp DNA Ladder (500 µl)	500 µl	PAL-E-100BP-500
Elite 100 bp DNA Ladder (2.5 ml)	5 x 500 µl	PAL-E-100BP-2500
Elite 1 kb DNA Ladder (100 µl)	100 µl	PAL-E-1KB-100
Elite 1 kb DNA Ladder (500 µl)	500 µl	PAL-E-1KB-500
Elite 1 kb DNA Ladder (2.5 ml)	5 x 500 µl	PAL-E-1KB-2500

Elite Agarose Tablets

Convenient, ready-to-use agarose tablets

- Prepare your gel in minutes! All you need is water (3-in-1 tablets) or running buffer (2-in-1 and agarose tablets)
- Ready-to-use tablet format: no messy weighing, and improved gel-to-gel reproducibility
- Ultrapure Agarose: high resolution of DNA fragment with low background
- Magnite Green DNA stain: safer, non-carcinogenic alternative to ethidium bromide. Emits green fluorescence when bound to ssDNA, dsDNA and RNA.

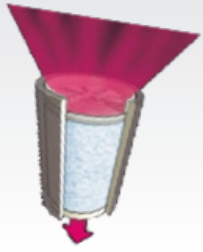
Catalogue Numbers:

Description	Pack Size	Order No
Elite 3-in-1 TAE Agarose Tablets (75 pcs)	75 pcs	PAL-E-3in1-TAE
Elite 3-in-1 TBE Agarose Tablets (75 pcs)	75 pcs	PAL-E-3in1-TBE
Elite 2-in-1 Agarose Tablets (100 pcs)	100 pcs	PAL-E-2in1-100
Elite Agarose Tablets, not premixed (100 pcs)	100 pcs	PAL-E-AG-100
Magnite Green DNA Stain (1 ml)	1 ml	PAL-E-MGS-100

V. Proteus Spin Column Kits

Proteus Protein A and G, Ni-IMAC and NoEndo™ Kits

- Unique rapid spin column kits containing FlowGo™ technology for flow rate control in a centrifuge
- Yield and purity for a gravity column with the speed of a spin column (protein sample in < 1 hour)
- Exclusive to antibody and recombinant protein purification, and endotoxin removal



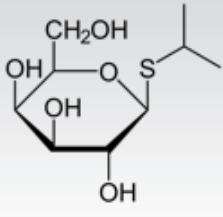
Catalogue Numbers:

Description	Sample Volume	Pack Size	Order No
Protein A Mini Kit	650 µl	16	PC-MAK16
Protein A Midi Kit	20 ml	4	PC-AK04
Protein G Mini Kit	650 µl	16	PC-MGK16
Protein G Midi Kit	20 ml	4	PC-GK04
Ni-IMAC Mini Kit	650 µl	24	PC-MMCK24
Ni-IMAC Midi Kit	20 ml	8	PC-MCK08
NoEndo™ Micro Kit	600 µl	24	GEN-NoE24Micro
NoEndo™ Mini Kit	20 ml	12	GEN-NoE12M
NoEndo™ Standard Kit	20 ml	12	GEN-NoE12S
NoEndo™ High-Capacity Kit	20 ml	12	GEN-NoE12HC

VI. Protein Expression Reagents

IPTG

- Ultrapure gene inducer at the best prices



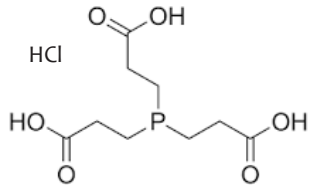
Isopropyl β-D-1-thiogalactopyranoside

Catalogue Numbers:

Description	Pack Size	Order No
Ultrapure IPTG	5 g	LU5002-005
Ultrapure IPTG	5 x 5 g	LU5002-025
1M IPTG Solution	5 x 0.2 ml	PAL-IPTG-200-5
1M IPTG Solution	5 x 1 ml	PAL-IPTG-1000-5
1M IPTG Solution	100 x 0.2 ml	PAL-IPTG-200-100
1M IPTG Solution	100 x 1 ml	PAL-IPTG-1000-100

TCEP

- Reducing agent to cleave disulphide bridges during protein chromatography and SDS-PAGE
- Ultrapure super-reducer at the best prices



Tris(2-carboxyethyl) phosphine hydrochloride

Catalogue Numbers:

Description	Pack Size	Order No
TCEP	1 g	GEN-TCEP-1
TCEP	10 g	GEN-TCEP-10

VII. Custom Services

Custom Column Packing

- Purification of recombinant and native proteins
- DNA & RNA purification
- Purification of recombinant peptides
- Screening expression clones

Catalogue Numbers:

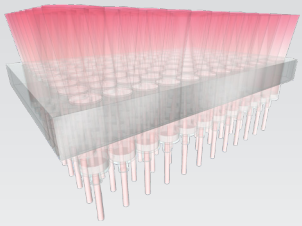
Description	Size	Pack Size	Order No	Description	Size	Pack Size	Order No
Custom FPLC Column	1 ml	25	HiFliQ1-X-25	Custom FPLC Column	1 ml	500	HiFliQ1-X-500
Custom FPLC Column	5 ml	25	HiFliQ5-X-25	Custom FPLC Column	5 ml	500	HiFliQ5-X-500
Custom FPLC Column	1 ml	100	HiFliQ1-X-100	Custom FPLC Column	1 ml	1000	HiFliQ1-X-1000
Custom FPLC Column	5 ml	100	HiFliQ5-X-100	Custom FPLC Column	5 ml	1000	HiFliQ5-X-1000

Protein Expression and Antibody Services

- UK facility; ISO 9001 certified
- Bacterial, insect and mammalian recombinant protein expression and purification
- Custom monoclonal antibody manufacture (mgs to grams)
- Bulk production, cell banking and cryo-storage
- Advanced troubleshooting and problem solving capabilities

VIII. Optima PRO

Optima PRO Screens



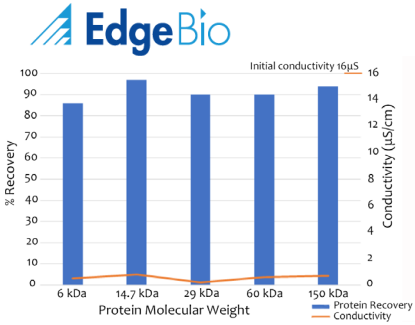
- **High throughput protein purification in batch mode:** up to 96 different clarified or unclarified samples with any purification resin, in parallel and with no mess, hands-free and no crosstalk between wells
- **Instant swelling of resin in a 96 well plate format:** pre-packed with 50 µl Protein Ark's dried resin formulation
- **One step filtration and purification:** purify secreted proteins from unclarified mammalian or insect cell culture loaded directly into the wells of the screen
- **Clog-free:** no need for pre-centrifugation or pre-filtration
- **Drip-free:** thanks to proprietary SelfSeal Membrane ensuring < 2.7% SD for well-to-well yield reproducibility across the entire plate

Catalogue Numbers:

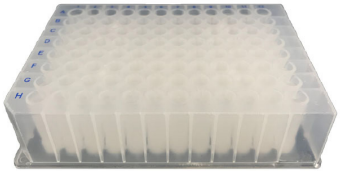
Description	1 kit	2 kits	10 kits (excluding receivers)
Optima PRO-D Ni Advance 96 well Screen	PAL-HT-NiADV-1D	PAL-HT-NiADV-2D	PAL-HT-NiADV-10D
Optima PRO-D Protein A 96 well Screen	PAL-HT-PA-1D	PAL-HT-PA-2D	PAL-HT-PA-10D
Optima PRO-D Protein G 96 well Screen	PAL-HT-PG-1D	PAL-HT-PG-2D	PAL-HT-PG-10D
Optima PRO-D Q IEX 96 well Screen	PAL-HT-Q-1D	PAL-HT-Q-2D	PAL-HT-Q-10D
Optima PRO-D S IEX 96 well Screen	PAL-HT-S-1D	PAL-HT-S-2D	PAL-HT-S-10D
Optima PRO Empty 96 well Screen	PAL-HT-EMP-1	PAL-HT-EMP-2	PAL-HT-EMP-10
Optima PRO Custom 96 well Screen	PAL-HT-CUST-1	PAL-HT-CUST-2	PAL-HT-CUST-10

Optima PRO De-Salting Plates

- Convenient small-scale preparation of protein samples post affinity purification, or prior to analysis techniques such as gel electrophoresis, liquid chromatography and LC-MS
- 800 µl bed volume in standardized array for processing protein samples >5kDa
- Designed for imidazole removal, desalting and buffer exchange



Protein recovery and salt removal, post affinity purification



Catalogue Numbers:

Description	Order No
Optima PRO De-salting plate kit (2 plates)	PRO96-2
Optima PRO De-salting plate kit (10 plates)	PRO96-10
Optima PRO De-salting plate (10 plates) (plates only)	PRO96-10x
Optima PRO De-salting plate (50 plates) (plates only)	PRO96-50x

1. **Proteus**
2. **Super & Fastback Resins**
3. **FliQ & HiFliQ**
4. **ProteoSEC**
5. **Elite & Quick Coomassie**

IPTG
-IPTG (5g & 5 x 5g)
-1M IPTG (0.2 & 1 ml)
Ultrapure (>99.5%)
Dioxane free, Exceptional price

CELL CULTURE

Proteus Mini Clarification Spin Columns
-0.2 µm pre-filtration prior to AKTA & NMR
-10-650 µl sample volume
-3 µl hold up volume
-Lowest protein binding PVDF membrane

FILTRATION

Proteus Empty Columns (Unique, simple and elegant; Control batch incubation & elute in a small, concentrated volume)
1-step batch Mini spin columns (0.65 ml)
1-step batch Midi spin columns (20 ml)
FliQ FPLC Columns (1 ml, 5 ml, 10 ml, 20 ml)

Super & Fastback Loose Resin
-Super Ni-NTA & Co-NTA resin (His-tagged)
-Super Heparin resin (Nucleic Acid Binding Proteins)
-SuperGlu agarose resin (GST-tagged)
-Fastback Ni Advance, Ni IMAC & Co IMAC resins (His-tagged)
-Fastback Protein A & Protein G Sepharose resins (IgGs)
-Fastback Q IEX & S IEX resins
-Fastback NoEndo resin (Endotoxin clearance)
-1 ml, 5 ml, 10 ml, 25 ml, 100 ml, >100 ml
-High Quality Resins at Exceptional Prices

PURIFICATION

ProteoSEC D 11/30, 16/60 & 26/60 SEC Columns:
3-70 & 6-6– Superdex resin
(Equiv. to Superdex S75pg & S200pg resin)

Proteus X-spinner 2.5 Ultrafiltration
Concentrators: Holy Grail. Best protein recoveries in the market. 5 kDa, 10 kDa, 20 kDa, 100 kDa & 300 kDa MWCO)

Proteus Pre-Packed Spin Columns
-Proteus Ni-IMAC Spin Columns with FlowGo Control
-Proteus Protein A and G Spin Columns with FlowGo Control
-Proteus NoEndo Spin Columns with FlowGo (HC,S) and SelfSeal (Mini, µ)

Unique FlowGo Technology: Speed of spin columns with yields and purities of gravity columns

Proteus DetEx Detergent Anion & Cation Exchange Spin Columns
Membrane protein grade for controlling, exchanging and removing free detergents. Ideal for membrane proteins.

HiFliQ Pre-Packed FPLC Columns
-HiFliQ Ni-Advance, Ni-NTA & Co-NTA IMAC (1 ml, 5 ml)
-HiFliQ Glu Agarose (1 ml, 5 ml)
-HiFliQ Protein A & Protein G (1 ml, 5 ml)
-HiFliQ Heparin (1 ml, 5 ml)
-HiFliQ IEX-Q and IEX-S (1 ml, 5 ml)

20 mM DTT and 20 mM EDTA tolerance (Ni Advance)
Mean bead size of 40 µm for high yields and good flow rates (1-6 ml/min for HiFliQ5)

ANALYSES

SDS-PAGE
Quick Coomassie Stain
Better price, 3 x Reusability, Store at RT
Realtime Stain
Only universal pre-stain for pure and partially purified proteins. Ideal for Gel Filtration fractions.
Elite Pre-stained Protein Ladder
Ultra-clear and expanded MW range (6.5-270 kDa)
High-intensity, 3-colour MW determination
Up to 100% electro-transfer efficiency
Elite 2 in 1 DNA ladders
Supplied ready-to-load, clear band separation
100 bp (100-1,000bp) and 1 kb (300-10,000bp) ladders
Elite 3 in 1 Agarose tablets
Ready-to-Use Agarose tablets. Available in TAE or TBE format, with safe Magnite Green DNA stain

ProteinArk

V3.Sg - Revised 17/04/20

www.lubio.ch

lubio science