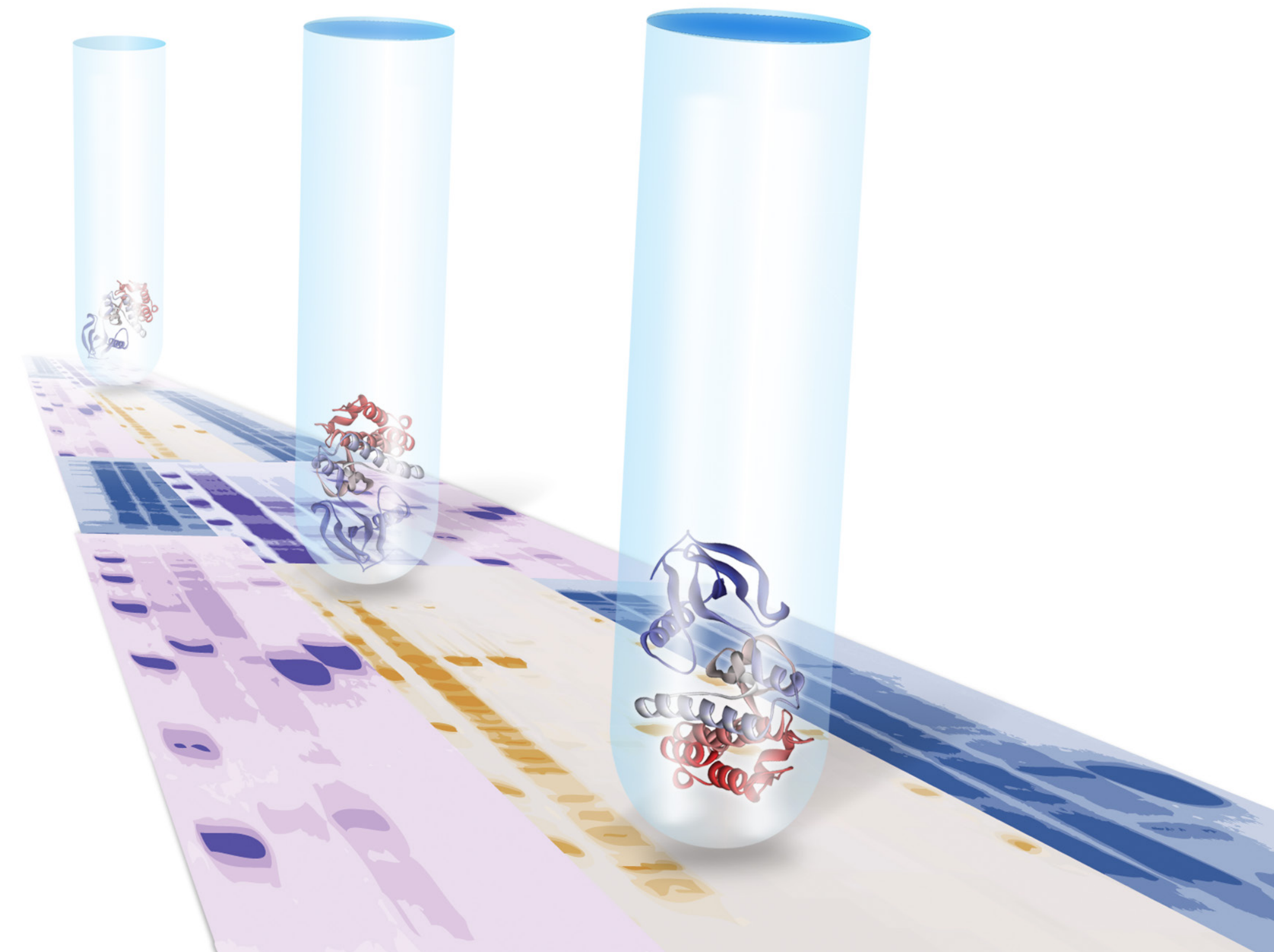


Selection guide

# Protein sample preparation



# Protein sample preparation workflows

Almost all protein samples need further preparation after collection. The quality of sample preparation is crucial to get the best possible analytical results.

This selection guide helps you find the appropriate methods and products to obtain proteins for further studies, in scales from nanograms to milligrams of purified protein. Three separate workflows are available for different sources of target protein: recombinant proteins, antibodies, and proteins from natural sources. These workflows are further refined and adapted to suit different numbers of samples, from a few to many such as in screening applications.

In sample preparation, all the targeted protein from the initial biological source must be transferred into a homogeneous solution. This can be performed either with preserved biological activity or, if required, in denatured state. The initial preparations include operations such as sample collection, stabilization, and extraction.

After the initial preparation, a second step is often needed to selectively capture the target protein using enrichment or purification methods. For the study of proteins in plasma and serum, depletion of high-abundant proteins is often needed to be able to analyze low-abundant proteins.

Sample preparation also includes removal of interfering nonprotein contaminants present in the initial source, amendment of noncompatible buffer compositions, and adjustment of the total protein concentration and volume.

Our products address most parts of the sample preparation process for extraction, stabilization, and enrichment/purification of target molecules. A range of products is available, covering any scale and throughput of protein sample preparations: Mag Sepharose™, MultiTrap™, SpinTrap™, GraviTrap™, HiTrap™, and HiPrep™ are different formats for reliable enrichment, screening, and small-scale purification of any target proteins. All formats are based on the established Cytiva chromatography media, which offer efficient protocols resulting in high enrichment factor, purity, and recovery of your target proteins.

Our protocols are optimized to suit typical situations. If needed, critical steps can be easily refined following the product guidelines in the product instructions.

# About the selection guides

Three different work flows, for different sources of target proteins, are available:

- Recombinant proteins
- Antibodies
- Proteins from natural sources

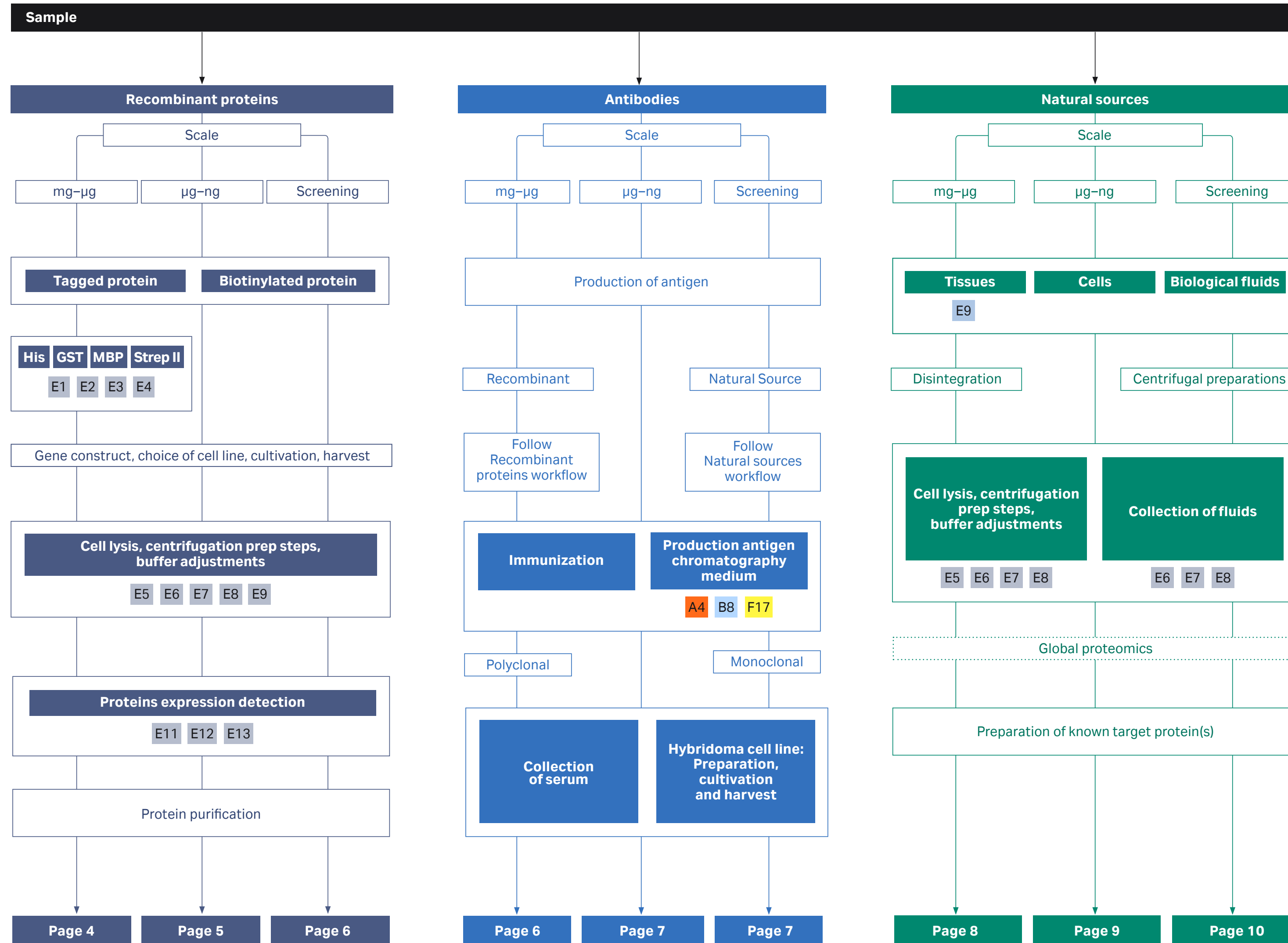
Each workflow contains three separate schemes: purifications in microgram to milligram scale, nanogram to microgram scale, or for screening purposes.

At the bottom of each track, reference is given to spread with more detailed workflows for each source and scale. All of these spread contain two workflows, one for few, and one for many samples.

In these workflows, suitable products are indicated with numbers. A list of all products corresponding to the numbers can be found on page 14, Ordering information for products is found at the end of the Selection guide.

To use this Selection guide, start on page 3, where the three workflows are found.

# Sample preparation for analytical purposes



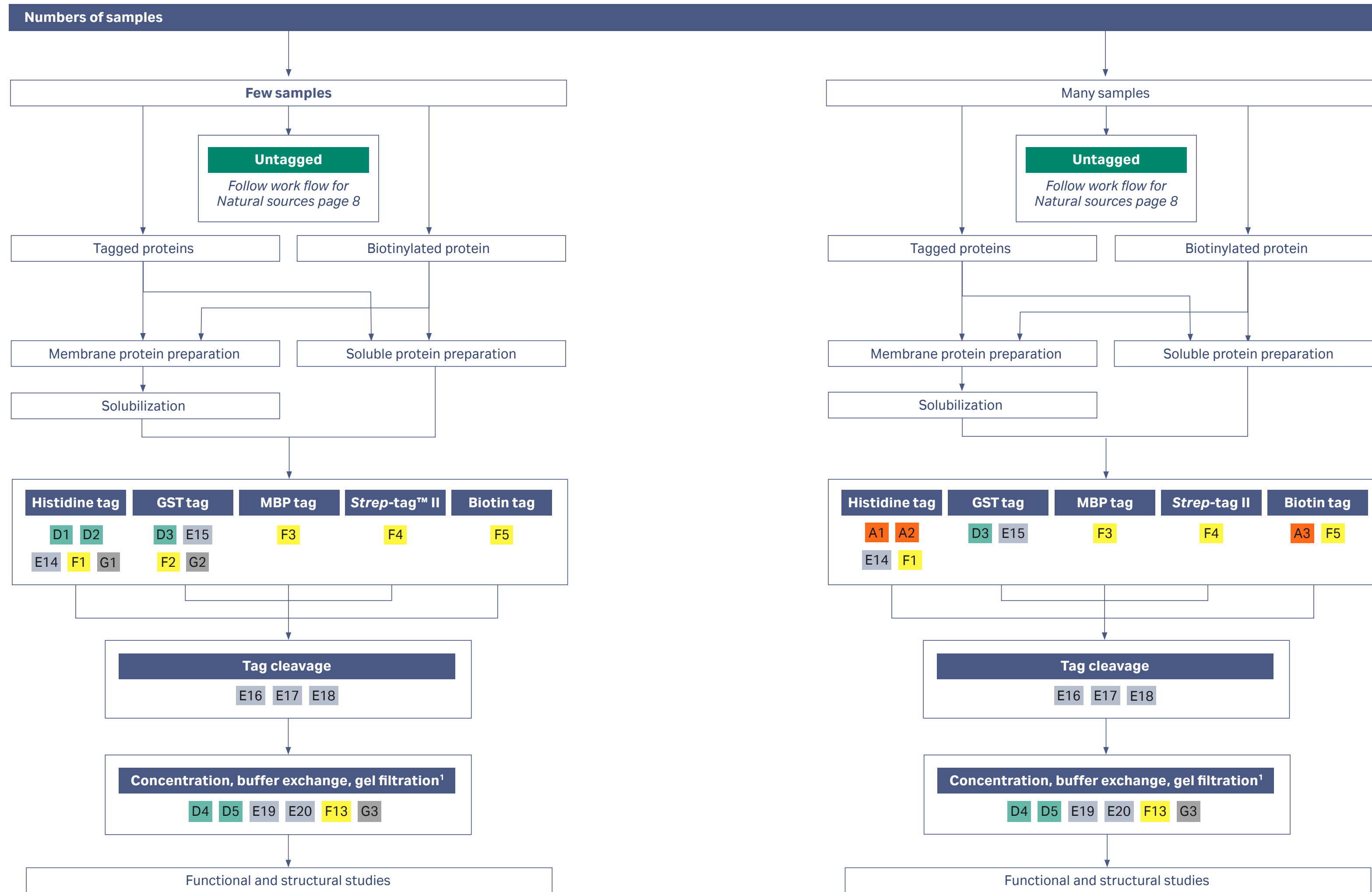
**Product index**

A4	NHS Mag Sepharose
B8	NHS HP SpinTrap
E1	<i>E. coli</i> B121
E2	pGEX vector
E3	MK13K07 Helper Phage
E4	GST vector primer for sequencing
E5	Yeast Protein Extraction Buffer Kit
E6	Mammalian Protein Extraction Buffer
E7	Protease Inhibitor Mix
E8	Nuclease Mix
E9	Sample Grinding Kit
E11	Anti-His Ab
E12	Anti-GST Ab
E13	GST Detection Module
F17	HiTrap NHS-activated HP

For complete product index see page 14.

# Recombinant proteins

## Microgram to milligram scale



<sup>1</sup> Column format is volume dependent

<sup>1</sup> Column format is volume dependent

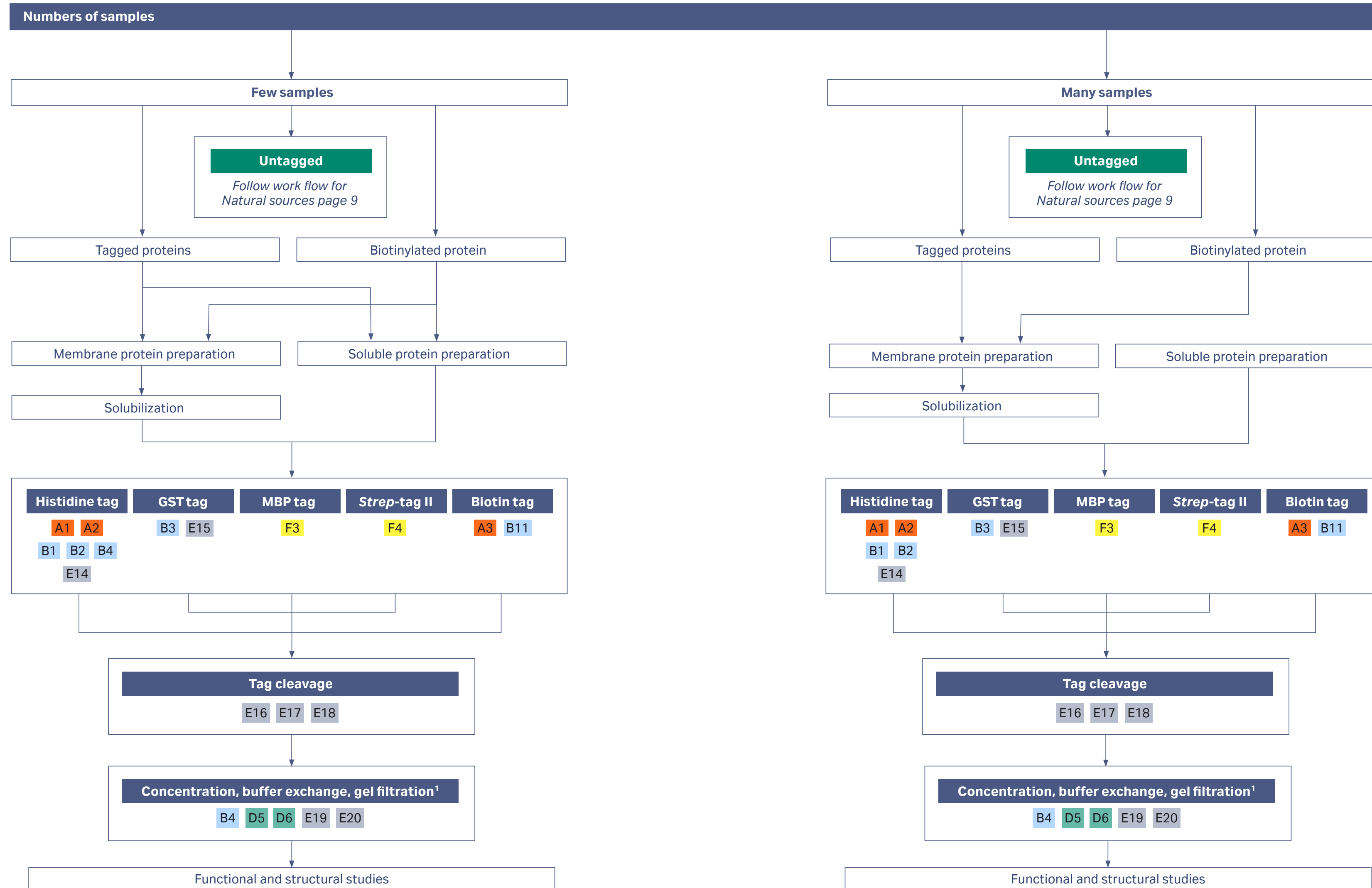
**Product index**

A1	His Mag Sepharose Ni
A2	His Mag Sepharose excel
A3	Streptavidin Mag Sepharose
D1	His GraviTrap
D2	His GraviTrap TALON
D3	GST GraviTrap
D4	PD-10 Desalting Columns
D5	PD MidiTrap™
E14	His Buffer Kit
E15	GST Buffer Kit
E16	PreScission™ Protease
E17	Thrombin
E18	Factor Xa
E19	Vivaspin™
E20	Mini Dialysis Kit™
F1	HisTrap™
F2	GSTrap™
F3	MBPTrap HP™
F4	StrepTrap HP™
F5	HiTrap Streptavidin HP
F13	HiTrap Desalting
G1	HisPrep FF 16/10
G2	GSTPrep™ FF 16/10
G3	HiPrep 26/10 Desalting

For complete product index see page 14.

# Recombinant proteins

## Nanogram to microgram scale



**Product index**

A1	His Mag Sepharose Ni
A2	His Mag Sepharose excel
A3	Streptavidin Mag Sepharose
B1	His SpinTrap
B2	His SpinTrap TALON
B3	GST SpinTrap
B4	His SpinTrap Kit
B11	Streptavidin HP SpinTrap
D5	PD MidiTrap
D6	PD MiniTrap™
E14	His Buffer Kit
E15	GST Buffer Kit
E16	PreScission Protease
E17	Thrombin
E18	Factor Xa
E19	Vivaspin
E20	Mini Dialysis Kit
F3	MBPTrap HP
F4	StrepTrap HP

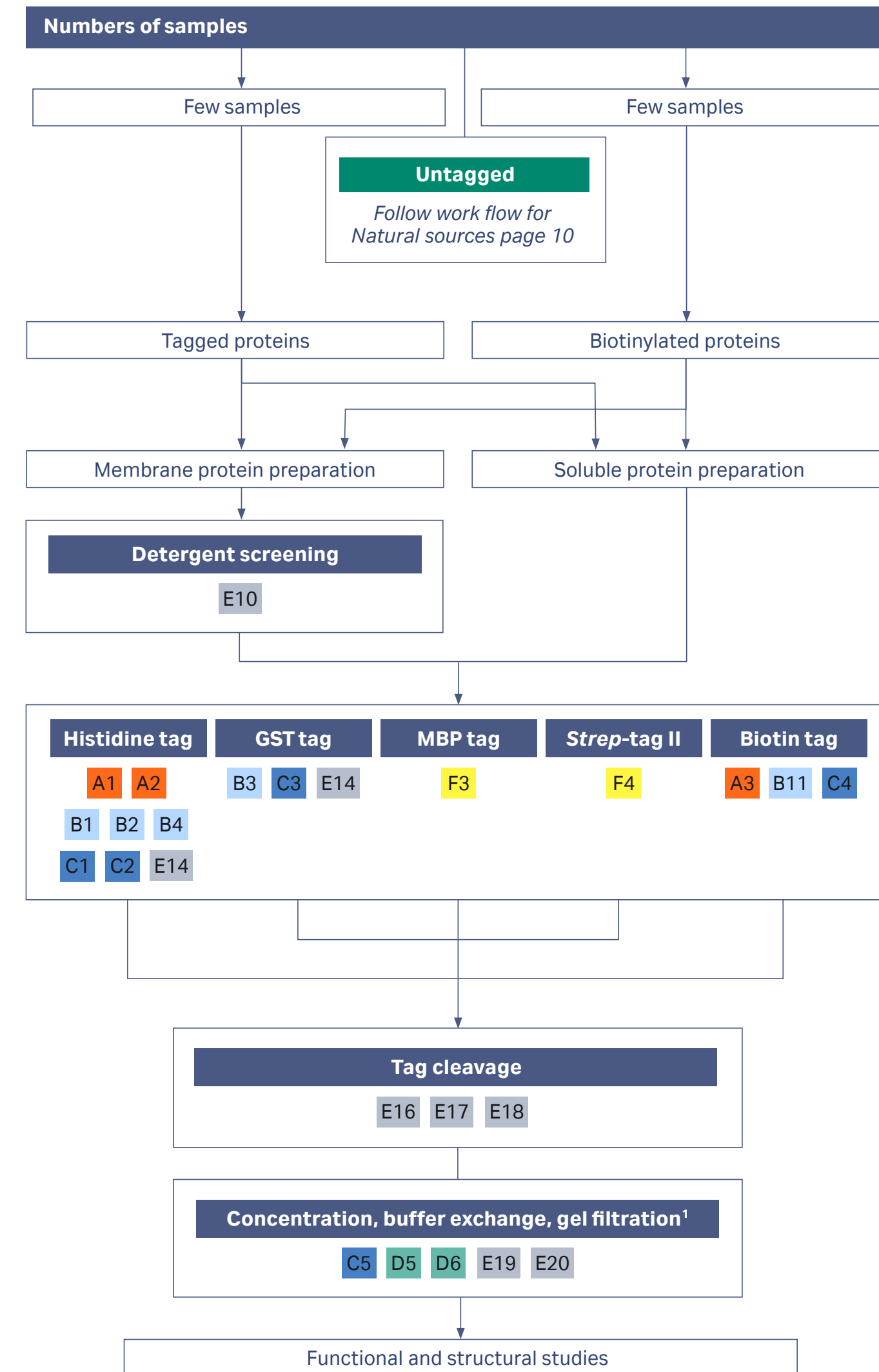
For complete product index see page 14.

<sup>1</sup> Column format is volume dependent

<sup>1</sup> Column format is volume dependent

# Recombinant proteins

## Screening



<sup>1</sup> Column and 96-well plate format is volume dependent

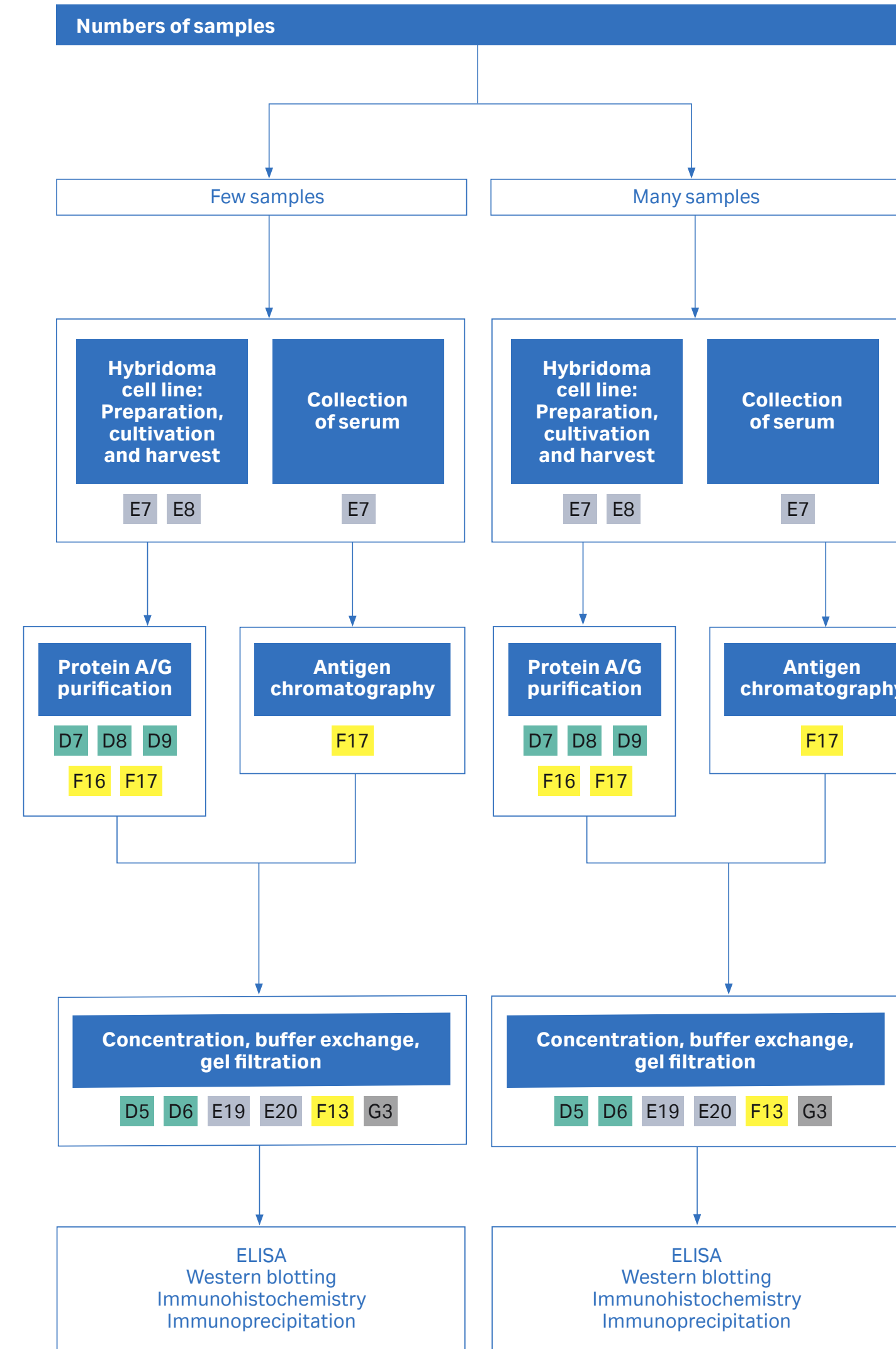
### Product index

- A1 His Mag Sepharose Ni
- A2 His Mag Sepharose excel
- A3 Streptavidin Mag Sepharose
- B1 His SpinTrap
- B2 His SpinTrap TALON
- B3 GST SpinTrap
- B4 His SpinTrap Kit
- B11 Streptavidin HP SpinTrap
- C1 His MultiTrap
- C2 His MultiTrap TALON
- C3 GST MultiTrap
- C4 Streptavidin HP MultiTrap
- C5 PD MultiTrap G-25
- D5 PD MidiTrap
- D6 PD MiniTrap
- E10 Membrane Protein Purification Kit
- E14 His Buffer Kit
- E16 PreScission Proetase
- E17 Thrombin
- E18 Factor Xa
- E19 Vivaspin
- E20 Mini Dialysis Kit
- F3 MBPTrap HP
- F4 StrepTrap HP

For complete product index see page 14.

# Antibodies

## Microgram to milligram scale



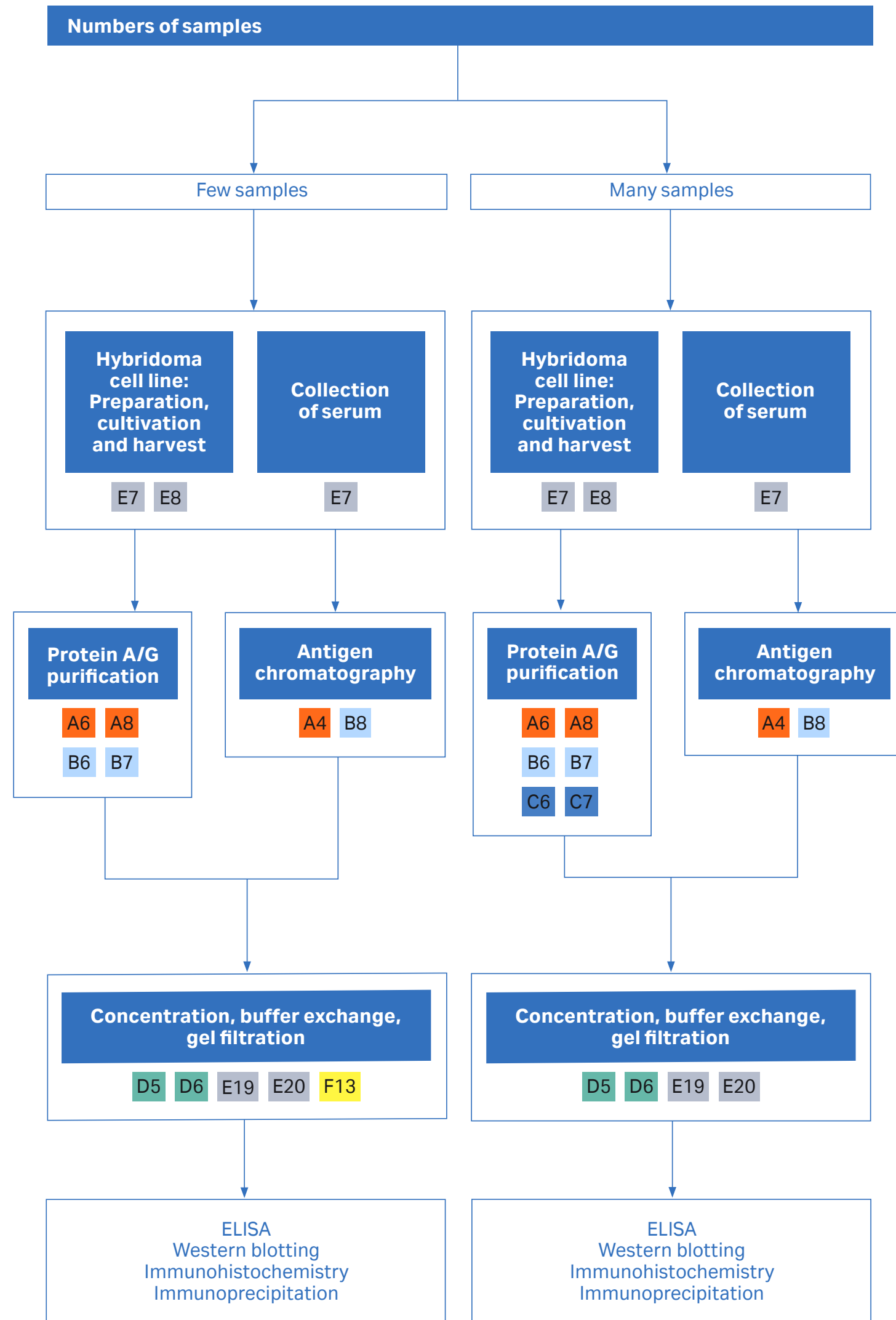
### Product index

- D5 PD MidiTrap
- D6 PD MiniTrap
- D7 rProtein A GraviTrap
- D8 Protein G GraviTrap
- D9 rProtein A/Protein G GraviTrap
- E7 Protease Inhibitor Mix
- E8 Nuclease Mix
- E19 Vivaspin
- E20 Mini Dialysis Kit
- F13 HiTrap Desalting
- F15 HiTrap Protein A
- F16 HiTrap Protein G
- F17 HiTrap NHS-activated HP
- G3 HiPrep 26/10 Desalting

For complete product index see page 14.

# Antibodies

## Nanogram to microgram scale



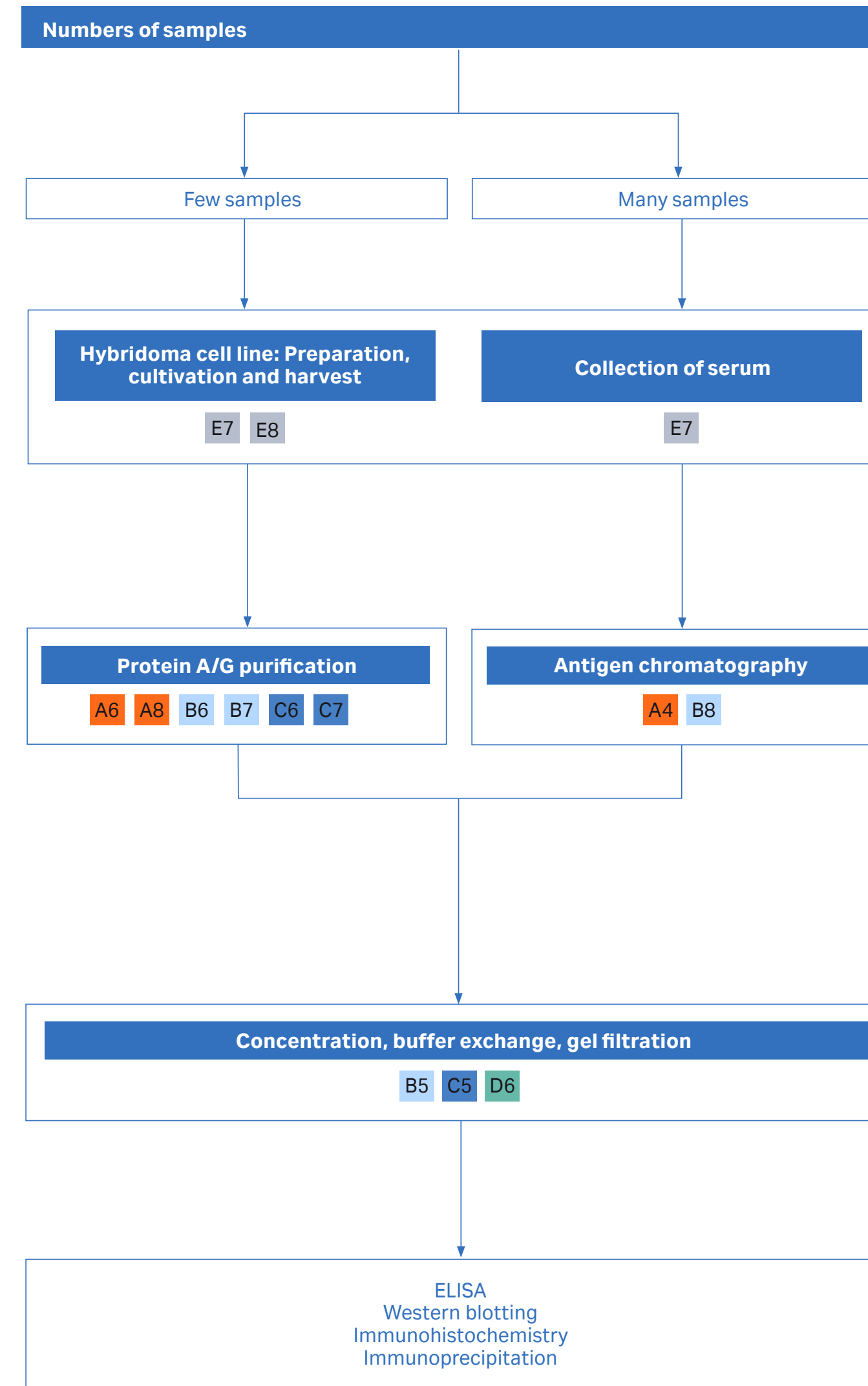
**Product index**

A4	NHS Mag Sepharose
A6	Protein A Mag Sepharose Xtra
A8	Protein G Mag Sepharose Xtra
B6	Protein A HP SpinTrap
B7	Protein G HP SpinTrap
B8	NHS HP SpinTrap
C6	Protein A HP MultiTrap
C7	Protein G HP MultiTrap
D5	PD MidiTrap
D6	PD MiniTrap
E7	Protease Inhibitor Mix
E8	Nuclease Mix
E19	Vivaspin
E20	Mini Dialysis Kit
F13	HiTrap Desalting

For complete product index see page 14.

# Antibody

## Screening



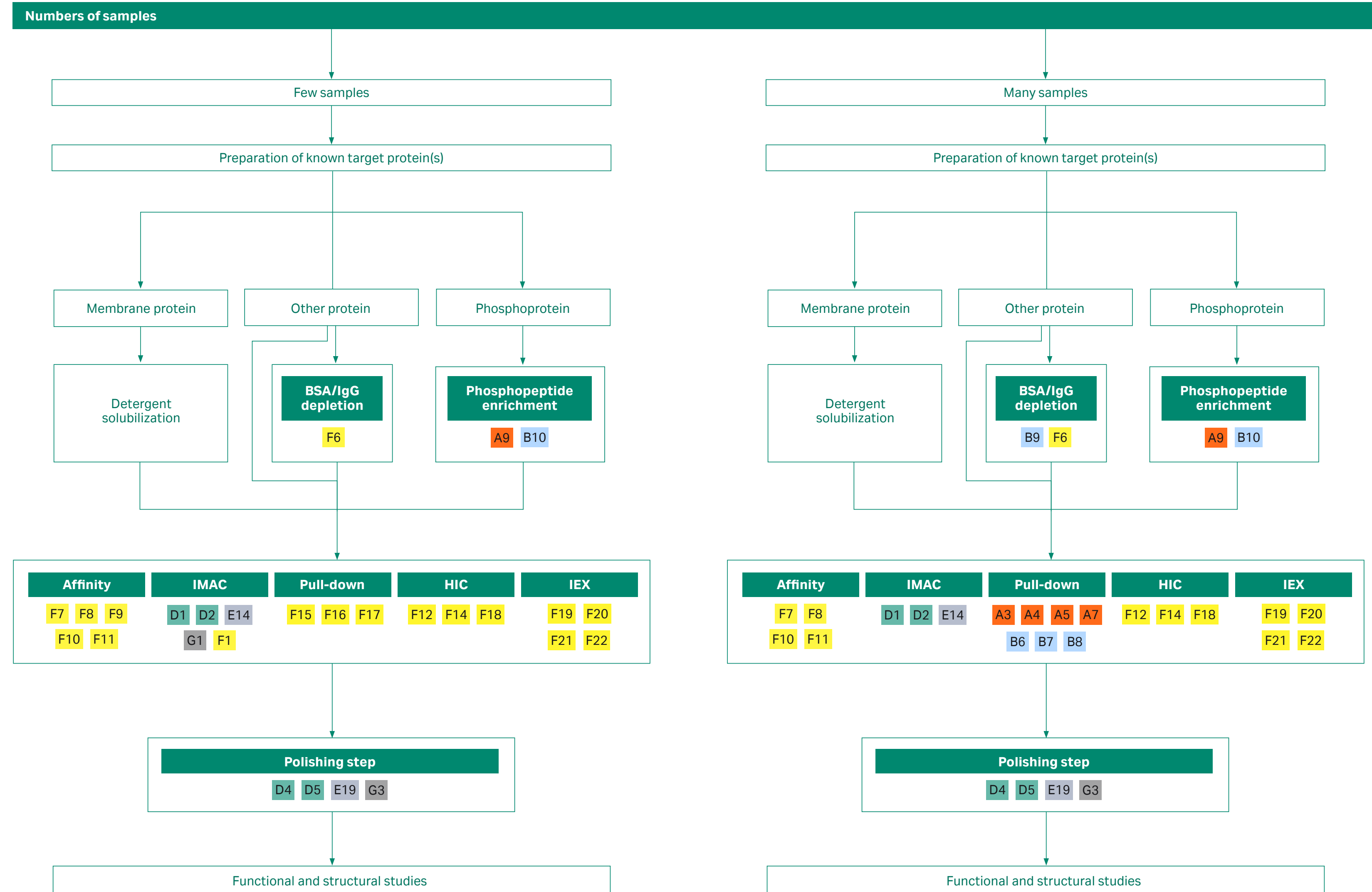
**Product index**

A4	NHS Mag Sepharose
A6	Protein A Mag Sepharose Xtra
A8	Protein G Mag Sepharose Xtra
B5	PD SpinTrap G-25
B6	Protein A HP SpinTrap
B7	Protein G HP SpinTrap
B8	NHS HP SpinTrap
C5	PD MultiTrap G-25
C6	Protein A HP MultiTrap
C7	Protein G HP MultiTrap
D6	PD MiniTrap
E7	Protease Inhibitor Mix
E8	Nuclease Mix

For complete product index see page 14.

# Natural sources

## Microgram to milligram scale



### Product index

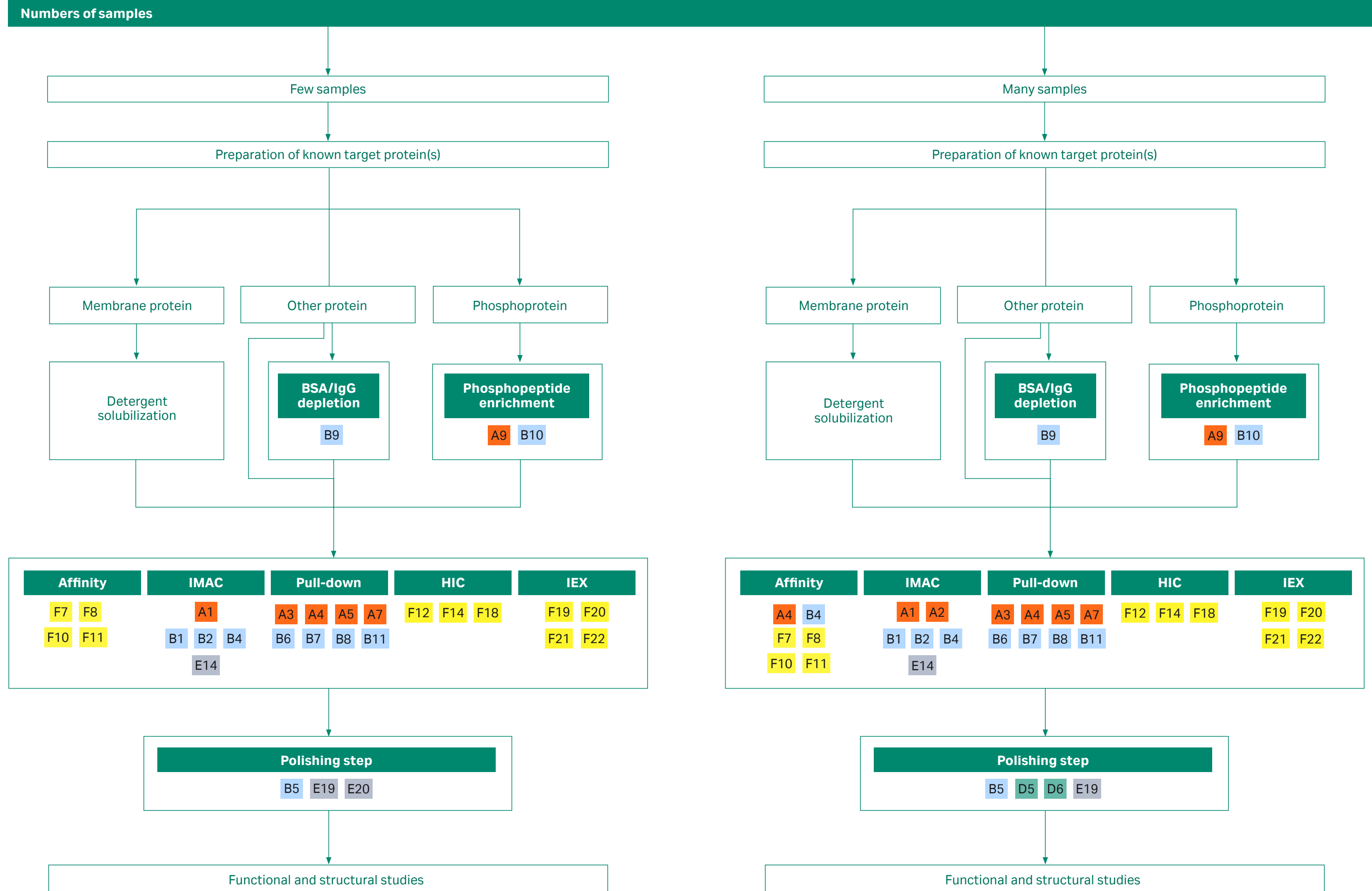
- A3 Streptavidin Mag Sepharose
- A4 NHS Mag Sepharose
- A5 Protein A Mag Sepharose
- A7 Protein G Mag Sepharose
- A9 TiO<sub>2</sub> Mag Sepharose
- B6 Protein A HP SpinTrap
- B7 Protein G HP SpinTrap
- B8 NHS HP SpinTrap
- B9 Albumin & IgG Depletion SpinTrap
- B10 Phos SpinTrap Fe
- D1 His GraviTrap
- D2 His GraviTrap TALON
- D4 PD-10 Desalting Columns
- D5 PD MidiTrap
- E14 His Buffer Kit
- E19 Vivaspin
- F1 HisTrap
- F6 HiTrap Albumin & IgG Depletion
- F7 HiTrap Blue HP
- F8 HiTrap Heparin HP
- F9 HiPrep Heparin FF 16/10
- F10 HiTrap Benzamidine FF (high sub)
- F11 HiTrap Con A HP
- F12 HiTrap Butyl
- F14 HiTrap Phenyl
- F15 HiTrap Protein A
- F16 HiTrap Protein G
- F17 HiTrap NHS-activated HP
- F18 HiTrap Octyl
- F19 HiTrap Q
- F20 HiTrap SP
- F21 HiTrap DEAE FF
- F22 HiTrap CM FF
- G1 HisPrep FF 16/10
- G3 HiPrep 26/10 Desalting

For complete product index see page 14.



# Natural sources

## Nanogram to microgram scale



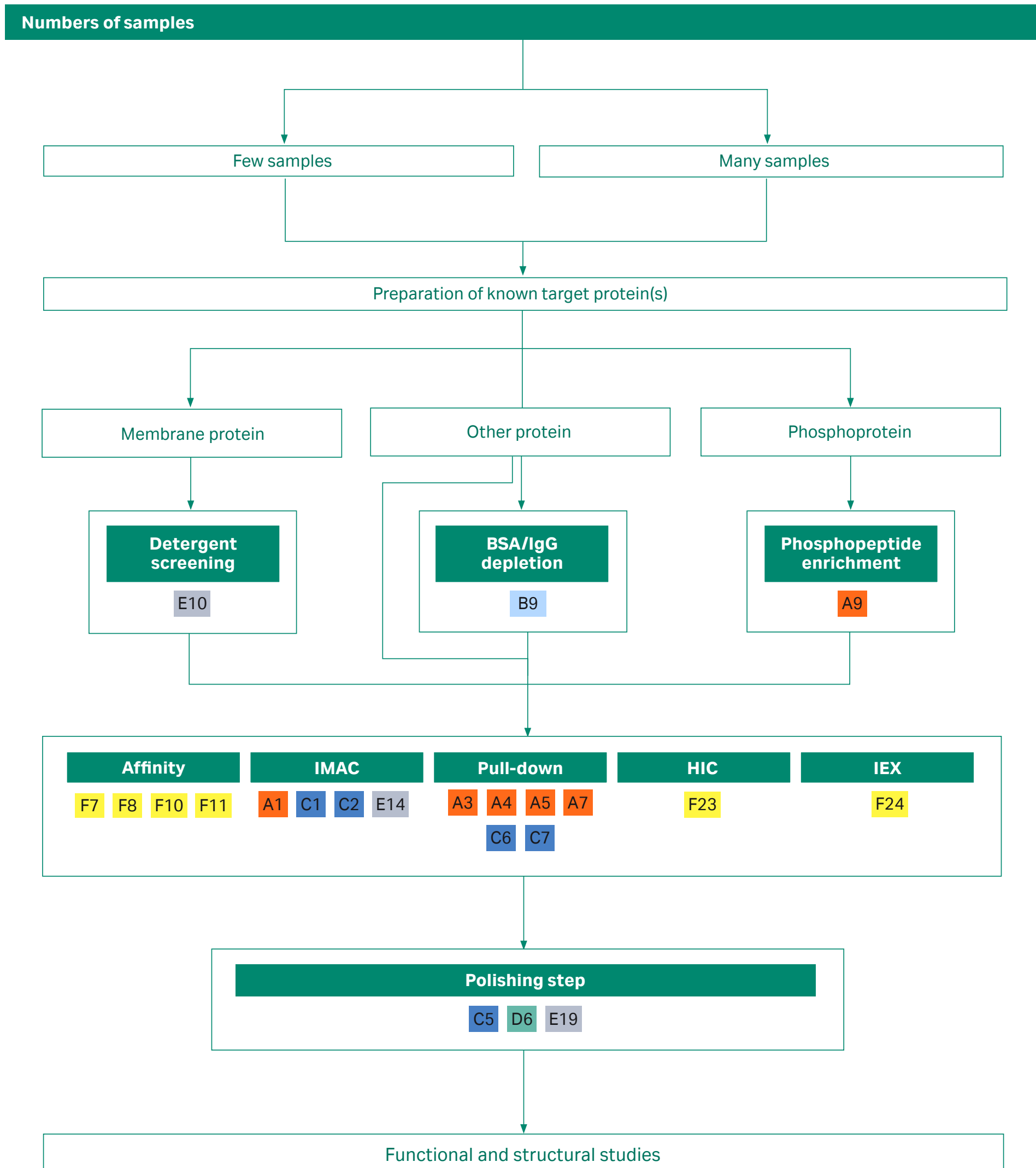
**Product index**

A1	His Mag Sepharose Ni
A2	His Mag Sepharose excel
A3	Streptavidin Mag Sepharose
A4	NHS Mag Sepharose
A5	Protein A Mag Sepharose
A7	Protein G Mag Sepharose
A9	TiO <sub>2</sub> Mag Sepharose
B1	His SpinTrap
B2	His SpinTrap TALON
B4	His SpinTrap Kit
B5	PD SpinTrap G-25
B6	Protein A HP SpinTrap
B7	Protein G HP SpinTrap
B8	NHS HP SpinTrap
B9	Albumin & IgG Depletion SpinTrap
B10	Phos SpinTrap Fe
B11	Streptavidin HP SpinTrap
D5	PD MidiTrap
D6	PD MiniTrap
E14	His Buffer Kit
E19	Vivaspin
E20	Mini Dialysis Kit
F7	HiTrap Blue HP
F8	HiTrap Heparin HP
F10	HiTrap Benzamidine FF (high sub)
F11	HiTrap Con A HP
F12	HiTrap Butyl
F14	HiTrap Phenyl
F18	HiTrap Octyl
F19	HiTrap Q
F20	HiTrap SP
F21	HiTrap DEAE FF
F22	HiTrap CM FF

For complete product index see page 14.

# Natural sources

## Screening



**Product index**

A1	His Mag Sepharose Ni
A3	Streptavidin Mag Sepharose
A4	NHS Mag Sepharose
A5	Protein A Mag Sepharose
A7	Protein G Mag Sepharose
A9	TiO <sub>2</sub> Mag Sepharose
B9	Albumin & IgG Depletion SpinTrap
C1	His MultiTrap
C2	His MultiTrap TALON
C5	PD MultiTrap G-25
C6	Protein A HP MultiTrap
C7	Protein G HP MultiTrap
D6	PD MiniTrap
E10	Membrane Protein Purification Kit
E14	His Buffer Kit
E19	Vivaspin
F7	HiTrap Blue HP
F8	HiTrap Heparin HP
F10	HiTrap Benzamide FF (high sub)
F11	HiTrap Con A HP
F23	HiTrap HIC Selection Kit
F24	HiTrap IEX Selection Kit

For complete product index see page 14.

# Ordering information

Product	Size/quantity	Code no.
<b>pGEX vectors</b>		
pGEX-4T-1	25 µg	28-9545-49
pGEX-4T-2	25 µg	28-9545-50
pGEX-4T-3	25 µg	28-9545-52
pGEX-5X-1	25 µg	28-9545-53
pGEX-5X-2	25 µg	28-9545-54
pGEX-5X-3	25 µg	28-9545-55
pGEX-2TK	25 µg	28-9545-56
pGEX-6P-1	25 µg	28-9546-48
pGEX-6P-2	25 µg	28-9546-50
pGEX-6P-3	25 µg	28-9546-51
pGEX-2T	25 µg	28-9546-53
pGEX-3X	25 µg	28-9546-54
pGEX -1λT EcoRI/BAP	5 µg	28-9546-56
<b>GST vector primers for sequencing</b>		
pGEX 5' Sequencing Primer		27-1410-01
pGEX 3' Sequencing Primer		27-1411-01
<i>E. coli</i> BL21		27-1542-01
MK13K07 Helper Phage		27-1524-01
<b>Lysis/Protein extraction</b>		
Sample Grinding Kit		80-6483-37
Yeast Protein Extraction Buffer Kit		28-9440-45
Mammalian Protein Extraction Buffer	500 ml	28-9412-79
<b>Enzyme reguation</b>		
Protease Inhibitor Mix		80-6051-23
Nuclease Mix		80-6501-42
<b>Detection</b>		
Anti-His Antibody		27-4710-01
Anti-GST Antibody	0.5 ml, 50 detections	27-4577-01
GST Detection Module		27-4590-01
GST 96-well Detection Module	5 plates	27-4592-01
<b>Cleavage</b>		
PreScission Protease		27-0843-01
Thrombin		27-0846-01
Factor Xa		27-0849-01
HiTrap Benzamidine FF (high sub)	2 × 1 ml	17-5143-02
HiTrap Benzamidine FF (high sub) 5 × 1 ml	5 × 1 ml	17-5143-01

Product	Size/quantity	Code no.
<b>Buffer kits</b>		
Membrane Protein Purification Kit		28-9805-82
His Buffer Kit		11-0034-00
GST Buffer Kit		28-9523-61
Protein A/G SpinTrap Buffer Kit		28-9135-67
NHS HP SpinTrap Buffer Kit		28-9135-69
Streptavidin HP SpinTrap Buffer Kit		28-9135-68
Ab Buffer Kit		28-9030-59
<b>Protein depletion</b>		
Albumin & IgG Depletion SpinTrap	10	28-9480-20
HiTrap Albumin & IgG Depletion	2 × 1 ml	28-9466-03
<b>Desalting/Buffer exchange/Cleanup</b>		
Disposable PD-10 Desalting	30	17-0851-01
PD MidiTrap G-25	50	28-9180-08
PD MiniTrap G-25	50	28-9180-07
PD SpinTrap G-25	50	28-9180-04
PD MultiTrap G-25	4 × 96 well filter plate	28-9180-06
PD MidiTrap G-10	50	28-9180-11
PD MiniTrap G-10	50	28-9180-10
HiTrap Desalting	5 × 5 ml	17-1408-01
HiPrep 26/10 Desalting	1 × 53 ml	17-5087-01
Superdex 200 5/150 GL	1 × 3 ml	28-9065-61
Mini Dialysis Kit, 1 kDa cut-off, 250 µl	1	80-6483-75
Mini Dialysis Kit, 1 kDa cut-off, 2 ml	1	80-6483-94
Mini Dialysis Kit, 8 kDa cut-off, 250 µl	1	80-6484-13
Mini Dialysis Kit, 8 kDa cut-off, 2 ml	1	80-6484-32
<b>Protein concentration</b>		
Vivaspin 500 MWCO 3000	25	28-9322-18
Vivaspin 500 MWCO 5000	25	28-9322-23
Vivaspin 500 MWCO 10 000	25	28-9322-25
Vivaspin 500 MWCO 30 000	25	28-9322-35
Vivaspin 500 MWCO 50 000	25	28-9322-36
Vivaspin 500 MWCO 100 000	25	28-9322-37
Vivaspin 2 MWCO 3000	25	28-9322-40
Vivaspin 2 MWCO 5000	25	28-9322-45
Vivaspin 2 MWCO 10 000	25	28-9322-47
Vivaspin 2 MWCO 30 000	25	28-9322-48
Vivaspin 2 MWCO 50 000	25	28-9322-57

Product	Size/quantity	Code no.
<b>Protein concentration</b>		
Vivaspin 2 MWCO 100 000	25	28-9322-58
Vivaspin 6 MWCO 3000	25	28-9322-93
Vivaspin 6 MWCO 5000	25	28-9322-94
Vivaspin 6 MWCO 10 000	25	28-9322-96
Vivaspin 6 MWCO 30 000	25	28-9323-17
Vivaspin 6 MWCO 50 000	25	28-9323-18
Vivaspin 6 MWCO 100 000	25	28-9323-19
Vivaspin 20 MWCO 3000	12	28-9323-58
Vivaspin 20 MWCO 5000	12	28-9323-59
Vivaspin 20 MWCO 10 000	12	28-9323-60
Vivaspin 20 MWCO 30 000	12	28-9323-61
Vivaspin 20 MWCO 50 000	12	28-9323-62
Vivaspin 20 MWCO 100 000	12	28-9323-63
<b>Antibody purification/pull-down</b>		
HiTrap Protein A HP	5 × 1 ml	17-0402-01
HiTrap Protein A HP	5 × 5 ml	17-0403-03
HiTrap rProtein A FF	5 × 1 ml	17-5079-01
HiTrap rProtein A FF	5 × 5 ml	17-5080-02
MABTrap Kit	1 × 1 ml	17-1128-01
rProtein A GraviTrap	10 × 1 ml	28-9852-54
Protein A Mag Sepharose	1 × 500 µl	28-9440-06
Protein A Mag Sepharose	4 × 500 µl	28-9513-78
Protein A HP SpinTrap		28-9031-32
Protein A HP MultiTrap	4 × 96 well filter plate	28-9031-33
Protein A Mag Sepharose Xtra	2 × 1 ml	28-9670-56
Protein A Mag Sepharose Xtra	5 × 1 ml	28-9670-62
Ab SpinTrap		28-4083-47
Protein G GraviTrap	10 × 1 ml	28-9852-55
HiTrap Protein G HP	5 × 1 ml	17-0404-01
HiTrap Protein G HP	5 × 5 ml	17-0405-03
Protein G Mag Sepharose	500 µl	28-9440-08
Protein G Mag Sepharose	4 × 500 µl	28-9513-79
Protein G HP SpinTrap		28-9031-34
Protein G HP MultiTrap	4 × 96 well filter plate	28-9031-35
Protein G Mag Sepharose Xtra	2 × 1 ml	28-9670-66
Protein G Mag Sepharose Xtra	5 × 1 ml	28-9670-70
Protein A/Protein G GraviTrap	10 × 1 ml	28-9852-56

## Ordering information

Product	Size/quantity	Code no.
<b>Antibody purification/pull-down (cont.)</b>		
HiTrap NHS-activated HP	5 × 1 ml	17-0716-01
HiTrap NHS-activated HP	1 × 5 ml	17-0717-01
NHS Mag Sepharose	500 µl	28-9440-09
NHS Mag Sepharose	4 × 500 µl	28-9513-80
NHS HP SpinTrap		28-9031-28
Streptavidin Mag Sepharose	2 × 1 ml	28-9857-38
Streptavidin Mag Sepharose	5 × 1 ml	28-9857-99
HiTrap Streptavidin HP	5 × 1 ml	17-5112-01
Streptavidin HP SpinTrap		28-9031-30
Streptavidin HP MultiTrap	4 × 96 well filter plate	28-9031-31
<b>Other affinity chromatography methods</b>		
HiTrap Blue HP	5 × 1 ml	17-0412-01
HiTrap Blue HP	1 × 5 ml	17-0413-01
HiTrap Heparin HP	5 × 1 ml	17-0406-01
HiTrap Heparin HP	5 × 5 ml	17-0407-03
HiPrep Heparin FF 16/10	1 × 20 ml	28-9365-49
HiTrap Con A 4B	5 × 1 ml	28-9520-85
HiTrap Con A 4B	5 × 5 ml	28-9520-96
TiO <sub>2</sub> Mag Sepharose	500 µl	28-9440-10
TiO <sub>2</sub> Mag Sepharose	4 × 500 µl	28-9513-77
Phos SpinTrap Fe		28-9298-81
<b>IEX</b>		
HiTrap SP HP	5 × 1 ml	17-1151-01
HiTrap SP HP	5 × 5 ml	17-1152-01
HiTrap Q HP	5 × 1 ml	17-1153-01
HiTrap Q HP	5 × 5 ml	17-1154-01
HiTrap Q FF	5 × 1 ml	17-5053-01
HiTrap Q FF	5 × 5 ml	17-5156-01
HiTrap SP FF	5 × 1 ml	17-5054-01
HiTrap SP FF	5 × 5 ml	17-5157-01
HiTrap DEAE FF	5 × 1 ml	17-5055-01
HiTrap DEAE FF	5 × 5 ml	17-5154-01
HiTrap CM FF	5 × 1 ml	17-5056-01
HiTrap CM FF	5 × 5 ml	17-5155-01

Product	Size/quantity	Code no.
<b>HIC</b>		
HiTrap Phenyl FF (high sub)	5 × 1 ml	17-1355-01
HiTrap Phenyl FF (high sub)	5 × 5 ml	17-5193-01
HiTrap Phenyl FF (low sub)	5 × 1 ml	17-1353-01
HiTrap Phenyl FF (low sub)	5 × 5 ml	17-5194-01
HiTrap Phenyl HP	5 × 1 ml	17-1351-01
HiTrap Phenyl HP	5 × 5 ml	17-5195-01
HiTrap Octyl FF	5 × 1 ml	17-1359-01
HiTrap Octyl FF	5 × 5 ml	17-5196-01
HiTrap Butyl FF	5 × 1 ml	17-1357-01
HiTrap Butyl FF	5 × 5 ml	17-5197-01
HiTrap Butyl-S FF	5 × 1 ml	17-0978-13
HiTrap Butyl-S FF	5 × 5 ml	17-0978-14
HiTrap Butyl HP	5 × 1 ml	28-4110-01
HiTrap Butyl HP	5 × 5 ml	28-4110-05
<b>Selection Kits</b>		
HiTrap HIC Selection Kit	7 × 1 ml	28-4110-07
HiTrap IEX Selection Kit	7 × 1 ml	17-6002-33
HiTrap IEX/Capto™ Selection Kit	5 × 1 ml	28-9343-88
<b>GST-tagged protein capture</b>		
GSTrap HP	5 × 1 ml	17-5281-01
GSTrap HP	5 × 5 ml	17-5282-02
GSTrap FF	5 × 1 ml	17-5130-01
GSTrap FF	5 × 5 ml	17-5131-02
GSTrap 4B	5 × 1 ml	28-4017-45
GSTrap 4B	5 × 5 ml	28-4017-48
GSTPrep FF 16/10	1 × 20 ml	28-9365-50
GST SpinTrap	50	28-9523-59
GST MultiTrap FF	4 × 96 well filter plate	28-4055-01
GST MultiTrap 4B	4 × 96 well filter plate	28-4055-00
GST GraviTrap	10	28-9523-60
GST Bulk Kit		27-4570-01
<b>Histidine-tagged protein capture</b>		
HiTrap FF crude	5 × 1 ml	11-0004-58
HiTrap FF crude	5 × 5 ml	17-5286-01
HiTrap FF crude Kit	1 kit	28-4014-77
HiTrap HP	5 × 1 ml	17-5247-01
HiTrap HP	5 × 5 ml	17-5248-02

Product	Size/quantity	Code no.
<b>Histidine-tagged protein capture (cont.)</b>		
HiTrap FF	5 × 1 ml	17-5319-01
HiTrap FF	5 × 5 ml	17-5255-01
HisPrep™ FF 16/10		28-9365-51
His GraviTrap	10	11-0033-99
His GraviTrap Kit		28-4013-51
His GraviTrap TALON		29-0005-94
His Mag Sepharose Ni	2 × 1 ml	28-9673-88
His Mag Sepharose Ni	5 × 1 ml	28-9673-90
His Mag Sepharose Ni	10 × 1 ml	28-9799-17
His Mag Sepharose excel	2 × 1 ml	17-3721-20
His Mag Sepharose excel	5 × 1 ml	17-3721-21
His Mag Sepharose excel	10 × 1 ml	17-3721-22
His SpinTrap	50	28-4013-53
His SpinTrap TALON		29-0005-93
His SpinTrap Kit		28-9321-71
His MultiTrap FF	4 × 96 well filter plate	28-4009-90
His MultiTrap TALON		29-0005-96
His MultiTrap HP	4 × 96 well filter plate	28-4009-89
<b>Strep-tag II protein purification</b>		
StrepTrap HP	5 × 1 ml	28-9075-46
StrepTrap HP	5 × 5 ml	28-9075-48
<b>MBP-tagged protein purification</b>		
MBPTrap HP	5 × 1 ml	28-9187-78
MBPTrap HP	5 × 5 ml	28-9187-80
<b>PreDictor™ plates</b>		
PreDictor AIEX Screening Plate	20 µl, 4 × 96 well filter plate	28-9432-89
PreDictor CIEX Screening Plate	20 µl, 4 × 96 well filter plate	28-9432-91
<b>Accessories</b>		
MagRack 6	1	28-9489-64
MagRack Maxi	1	28-9864-41
Collection Plate 500 µl V-bottom	5	28-4039-43
MiniSpin Adapter	10	28-9232-43
MidiSpin Adapter	10	28-9232-44
PD-10 Spin Adapter	10	28-9232-45

# Enrichment and purification formats



**Mag Sepharose** para-magnetic beads are designed for simple enrichment of proteins and small-scale purification or screening. Mag Sepharose beads slurry volume can be varied in a linear manner to match capacity needs, and large sample volumes of low-expressed target protein can be enriched and concentrated. Sample volume from a few microliters to about 50 ml can be used with Mag Sepharose.



**GraviTrap** columns are prepacked gravity-flow columns for purification and clean-up of proteins and other biomolecules without the need for a purification system. GraviTrap columns are packed with 1 or 2 ml of chromatography medium, allowing capture of milligram amounts of target protein. **PD-10 Desalting Columns, PD MiniTrap, and PD MidiTrap** are prepacked gravity-flow columns designed for clean-up, desalting, and buffer exchange of biomolecules, allowing sample volumes between 0.1 and 3.5 ml.



**SpinTrap** prepacked microspin columns enable fast small-scale enrichment, depletion, or purification of target protein using a bench top microcentrifuge. SpinTrap columns are prepacked with chromatography medium. Multiple plates samples can be processed simultaneously.



**HiTrap** columns are prepacked 1 or 5 ml columns that can be used either with a syringe, laboratory pump, or a chromatography system. A broad range of columns is available for purification of all different kinds of proteins. Two or more columns can easily be connected in series to increase the capacity making the loading sample volume very flexible.



**MultiTrap** plates are prepacked 96-well filter plates for high-throughput processing of multiple samples; typically used for expression screening of proteins or optimization of conditions for capture and elution of target molecules. Each well is prepacked with a fixed volume of affinity chromatography medium. MultiTrap can be used manually or in automated systems, together with vacuum or centrifugation.



**HiPrep 16/10** columns are prepacked 20 ml columns for use with chromatographic systems. They enable binding of high milligram to gram amounts of proteins and are useful tools for preparative purifications. The columns are available for purification of many different proteins, and a broad range of sample volumes can be loaded.

# Index

A1 His Mag Sepharose Ni  
A2 His Mag Sepharose excel  
A3 Streptavidin Mag Sepharose  
A4 NHS Mag Sepharose  
A5 Protein A Mag Sepharose  
A6 Protein A Mag Sepharose Xtra  
A7 Protein G Mag Sepharose  
A8 Protein G Mag Sepharose Xtra  
A9 TiO<sub>2</sub> Mag Sepharose

B1 His SpinTrap  
B2 His SpinTrap TALON  
B3 GST SpinTrap  
B4 His SpinTrap Kit  
B5 PD SpinTrap G-25  
B6 Protein A HP SpinTrap  
B7 Protein G HP SpinTrap  
B8 NHS HP SpinTrap  
B9 Albumin & IgG Depletion SpinTrap  
B10 Phos SpinTrap Fe  
B11 Streptavidin HP SpinTrap

C1 His MultiTrap  
C2 His MultiTrap TALON  
C3 GST MultiTrap  
C4 Streptavidin HP MultiTrap  
C5 PD MultiTrap G-25  
C6 Protein A HP MultiTrap  
C7 Protein G HP MultiTrap

D1 His GraviTrap  
D2 His GraviTrap TALON  
D3 GST GraviTrap  
D4 PD-10 Desalting Columns  
D5 PD MidiTrap  
D6 PD MiniTrap  
D7 rProtein A GraviTrap  
D8 Protein G GraviTrap  
D9 rProtein A/Protein G GraviTrap

E1 E. coli B121  
E2 pGEX vector  
E3 MK13K07 Helper Phage  
E4 GST vector primer for sequencing  
E5 Yeast Protein Extraction Buffer Kit  
E6 Mammalian Protein Extraction Buffer  
E7 Protease Inhibitor Mix  
E8 Nuclease Mix  
E9 Sample Grinding Kit  
E10 Membrane Protein Purification Kit  
E11 Anti-His Ab  
E12 Anti-GST Ab  
E13 GST Detection Module  
E14 His Buffer Kit  
E15 GST Buffer Kit  
E16 PreScission Proetase  
E17 Thrombin  
E18 Factor Xa  
E19 Vivaspin  
E20 Mini Dialysis Kit  
E21 MagRack 6  
E22 MagRack Maxi

F1 HisTrap  
F2 GSTrap  
F3 MBPTrap HP  
F4 StrepTrap HP  
F5 HiTrap Streptavidin HP  
F6 HiTrap Albumin & IgG Depletion  
F7 HiTrap Blue HP  
F8 HiTrap Heparin HP  
F9 HiPrep Heparin FF 16/10  
F10 HiTrap Benzamidine FF (high sub)  
F11 HiTrap Con A HP  
F12 HiTrap Butyl  
F13 HiTrap Desalting  
F14 HiTrap Phenyl  
F15 HiTrap Protein A  
F16 HiTrap Protein G  
F17 HiTrap NHS-activated HP  
F18 HiTrap Octyl  
F19 HiTrap Q  
F20 HiTrap SP  
F21 HiTrap DEAE FF  
F22 HiTrap CM FF  
F23 HiTrap HIC Selection Kit  
F24 HiTrap IEX Selection Kit

G1 HisPrep FF 16/10  
G2 GSTPrep FF 16/10  
G3 HiPrep 26/10 Desalting

## cytiva.com/sampleprep

Cytiva and the Drop logo are trademarks of Global Life Sciences IP Holdco LLC or an affiliate. Capto, GraviTrap, GSTPrep, GSTrap, HiPrep, HisPrep, HisTrap, HiTrap, MAbTrap, MBPTrap, MidiTrap, MiniTrap, MultiTrap, PreDictor, PreScission, Sepharose, SpinTrap, StrepTrap and Superdex are trademarks of Global Life Sciences IP Holdco LLC or an affiliate doing business as Cytiva.

Strep-tag is a trademark of IBA GmbH. Vivaspin is a trademark of Sartorius Stedim Biotech GmbH. All other third-party trademarks are the property of their respective owners.

IMAC Sepharose products, Ni Sepharose products, and Fe Sepharose products are sold under a license from Sigma-Aldrich under patent number EP 1276716 (Metal chelating compositions) and equivalent patents and patent applications in other countries.

© 2020 Cytiva

All goods and services are sold subject to the terms and conditions of sale of the supplying company operating within the Cytiva business. A copy of those terms and conditions is available on request. Contact your local Cytiva representative for the most current information.

For local office contact information, visit [cytiva.com/contact](https://cytiva.com/contact)

CY13987-25Aug20-SG

