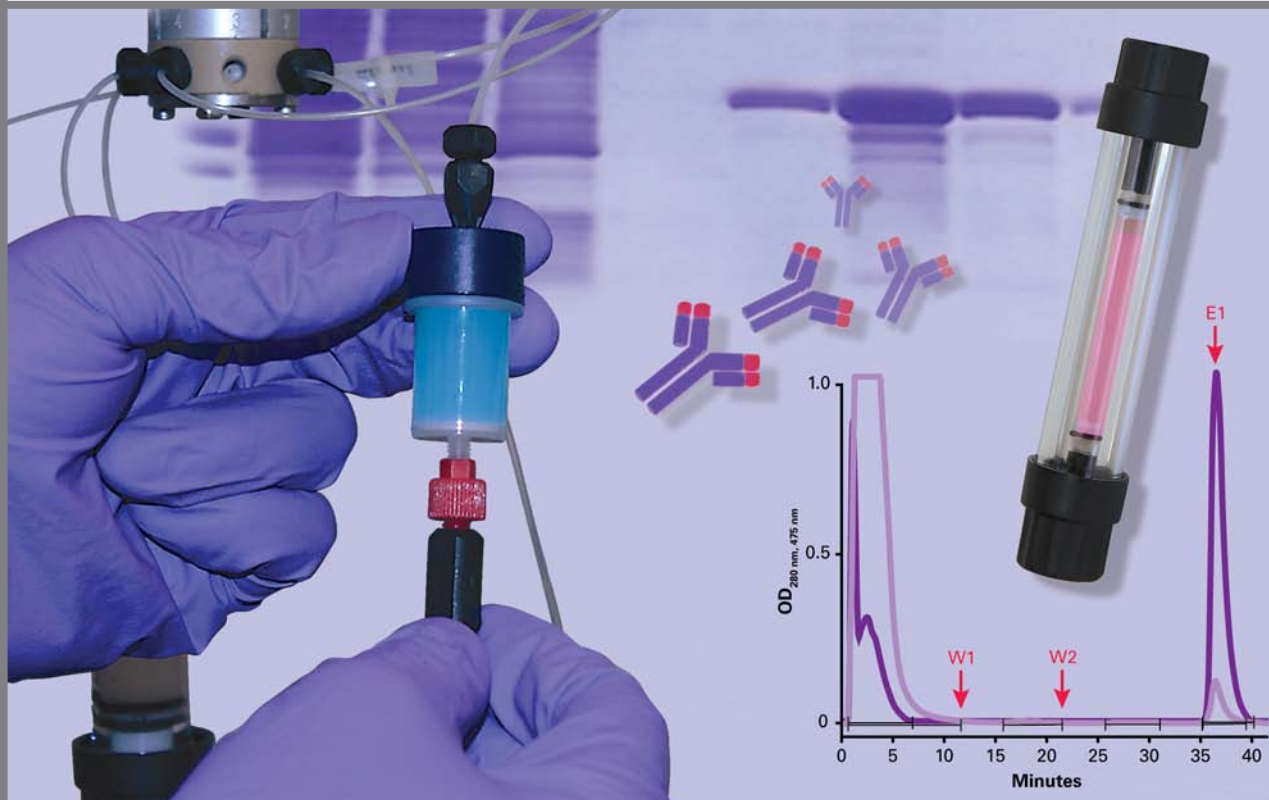
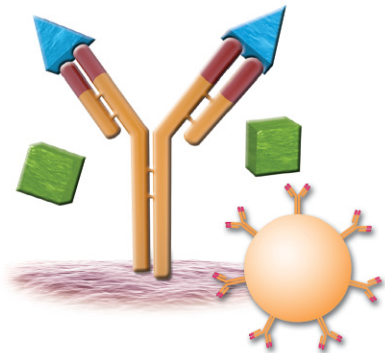


Protein Purification Products

Complete Solutions for All of Your Protein Purification Applications



FLAG-Tagged Protein Products



EXPRESS with the pCMV-DYKDDDDK Vector Set

- Fuse your protein of interest to the DYKDDDDK (FLAG epitope) tag at the N or C terminus
- CMV promoter provides high-level, constitutive expression in a wide variety of mammalian cells

PURIFY or Immunoprecipitate with Anti-DYKDDDDK Beads

- Purify or immunoprecipitate FLAG-tagged fusion proteins from cell lysates
- Beads provide higher sensitivity than a competitor's anti-FLAG, antibody-conjugated beads

DETECT with the Anti-DYKDDDDK Antibody

- Identify and monitor FLAG-tagged protein expression
- Highly specific—does not cross-react with endogenous proteins

His-Tagged Protein Products

EXPRESS & PURIFY with pET Express & Purify Kits

- Create N- and C-terminal 6xHN-tagged fusion proteins with pET-based vectors
- Kits come with a choice of vectors compatible with In-Fusion® or traditional restriction enzyme cloning, and reagents for TALON® or His60 Ni purification

EXTRACT with xTractor Buffer

- Optimized lysis buffer for recombinant protein extraction

PURIFY with TALON Co Resins—Highest Purify

- **TALON Resin:** Use for batch/gravity applications
- **TALON Superflow Resin:** Use for FPLC applications
- **TALON CellThru Resin:** Use for crude cell lysates, sonicates, and fermentation liquids
- **TALON Magnetic Beads:** Use for microscale or high-throughput purification

PURIFY with His60 Ni Superflow Resin—Highest Capacity

- Use for batch/gravity and FPLC applications
- Highest binding capacity—60 mg/ml
- Superior performance to other Ni-based resins (highest capacity and better purity)
- Low nickel ion leakage
- Many sizes are available, from 10 ml to 1,000 ml

DETECT with His-Tag Detection Antibodies

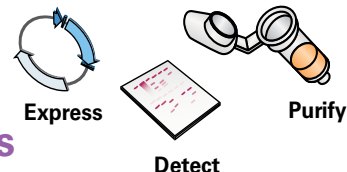
- **6xHis Monoclonal Antibody (Albumin Free)**—requires 2° Ab
- **6xHis mAb-HRP Conjugate**—does not require 2° Ab
- **6xHN Polyclonal Antibody**—detects the 6xHN tag

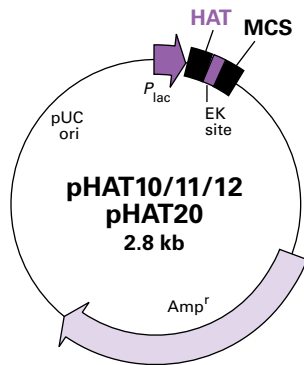


Not sure which tag is best for your protein and application?

Our Peptide Tag Selection Guide will help you decide.

Learn more by visiting www.clontech.com/peptidetags

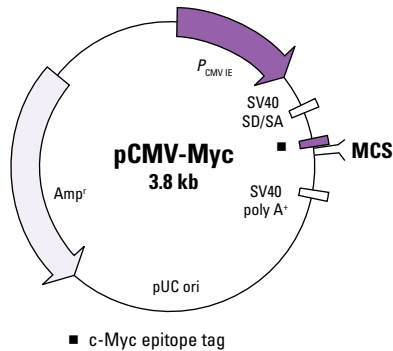




HAT-Tagged Protein Products

EXPRESS & PURIFY with the HAT Protein Expression & Purification System

- Create N- and C-terminal HAT-tagged fusion proteins
- Kit comes with TALON resin, disposable columns, and purification buffers
- Protein solubility resembles that of wild-type proteins (does not form aggregates within inclusion bodies)
- Protein can be eluted under mild conditions, such as neutral pH or low imidazole concentration



Myc-Tagged Protein Products

EXPRESS with the pCMV-Myc Vector Set

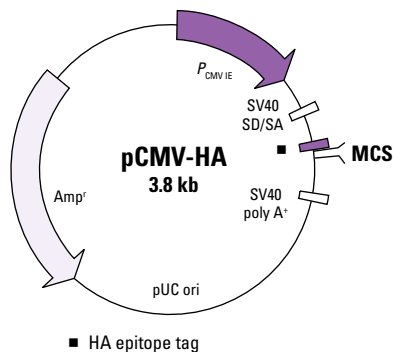
- Fuse your protein of interest to a Myc-tag at the N or C terminus
- CMV promoter provides high-level, constitutive expression in a wide variety of mammalian cells

DETECT or Immunoprecipitate with the c-Myc Monoclonal Antibody

- Confirm yeast two-hybrid interactions in mammalian cells
- Use for immunoprecipitation of c-myc-tagged proteins from cell lysates, ELISA, immunocytochemistry of microinjected or transfected cells, and localization of c-myc-tagged proteins

PURIFY or Immunoprecipitate with c-Myc Monoclonal Antibody-Agarose Beads

- Small-scale purification of myc-tagged proteins



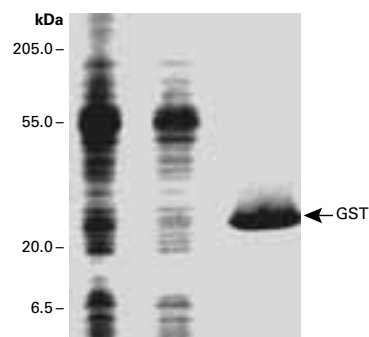
HA-Tagged Protein Products

EXPRESS with the pCMV-HA Vector Set

- Fuse your protein of interest to an HA-tag at the N or C terminus
- CMV promoter provides high-level, constitutive expression in a wide variety of mammalian cells

DETECT or Immunoprecipitate with the HA-Tag Polyclonal Antibody

- Confirm yeast two-hybrid interactions in mammalian cells
- Use for Western blot, immunoprecipitation, immunofluorescence, and ELISA of HA-tagged proteins



GST-Tagged Protein Products

PURIFY with GST-Tag Purification Resin & Kit

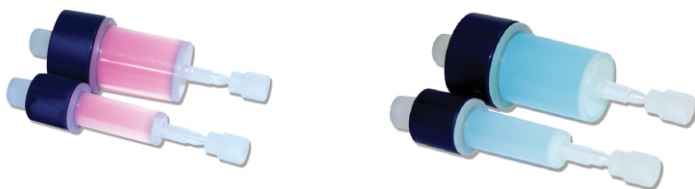
- High capacity (10 mg/ml) resin yields highly purified protein
- Resin is easily regenerated for reuse
- Glutathione Superflow Resin is available in 10 ml and 100 ml sizes
- GST Purification Kit (includes Glutathione-Superflow Columns and extraction and elution buffers)

Prepacked Columns Offer Highly Reproducible Results Between Runs

1 ml & 5 ml Cartridges

HisTALON Superflow

His60 Ni Superflow



FPLC Cartridges—HisTALON™ & His60 Ni Ready-to-use 1 ml and 5 ml cartridges

- Use on any chromatography system
- Simple manual operation using a syringe
- Can be connected in series to scale up

Gravity Columns

HisTALON

His60 Ni Superflow



Gravity Columns—HisTALON & His60 Ni Ready-to-use 1 ml columns

- Up to 20 mg highly pure his-tagged protein per HisTALON column
- Up to 60 mg pure his-tagged protein per His60 Ni Superflow column

TALON Single Step Columns

5 ml

20 ml



Single Step Columns—TALON Single Step Ready-to-use 5 ml and 20 ml columns

- Load bacterial culture directly onto column
- On-column extraction and purification
- Load bacterial culture, wash, and elute target protein

TALON Spin Columns



Disposable Spin Columns—TALON Spin Ready-to-use prepacked spin columns for small-scale purification

- Rapid, parallel purification in as little as 30 minutes
- Applications: screening of positive clones, trial-level purification

TALON 2 ml Disposable Gravity Columns



Empty 2 ml Disposable Columns—TALON Ready-to-pack empty 2 ml gravity columns

- Fill columns with TALON, TALON CellThru, TALON Superflow, or His60 Ni Superflow resins
- Also suitable for glycoprotein enrichment, phosphoprotein & phosphopeptide enrichment, GST-tag, and antibody purification resins

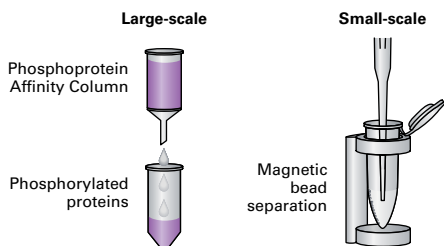
CellThru 10 ml Disposable Columns



Empty 10 ml Disposable Columns—CellThru Ready-to-pack empty 10 ml gravity columns

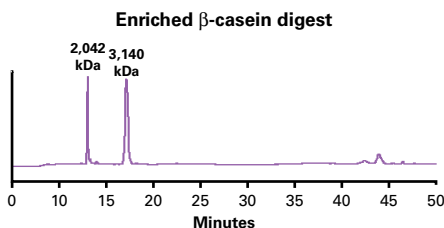
- Fill columns with TALON, TALON CellThru, TALON Superflow, or His60 Ni Superflow resins
- Also suitable for glycoprotein enrichment, phosphoprotein & phosphopeptide enrichment, and GST-tag & antibody purification resins

Phospho- & Glycoprotein Products



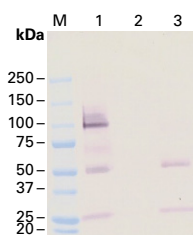
Phosphoprotein Enrichment

- **Large-Scale**—Complete separation of phosphorylated and unphosphorylated proteins using gravity-flow affinity columns
- **Small-Scale**—Complete kit for magnetic bead-based microscale phosphoprotein enrichment from ANY cell or tissue sample (30 minute protocol)
- 14–17% of phosphorylated proteins in final eluate (depending on cell type)
- Ideal for cell signaling studies (no radioactivity) or 2D-PAGE



Phosphopeptide Enrichment

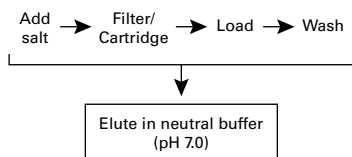
- Rapid, reliable enrichment of phosphopeptides (30 minute protocol)
- Available as magnetic beads or prepacked spin columns
- Complete kits for microscale enrichment of phosphopeptides
- Yields highly concentrated samples ideal for LC or MALDI analysis



Glycoprotein Enrichment Resin & Detection Kit

- Flexible—enrichment resin can be used with gravity-flow or FPLC columns
- Superior performance—enrichment resin shows increased specific binding of glycoproteins and reduced nonspecific binding
- Resin enriches for low- and high-abundance serum glycoproteins

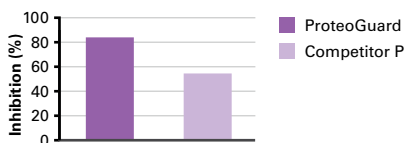
Antibody Purification



Thiophilic Antibody Purification Resins

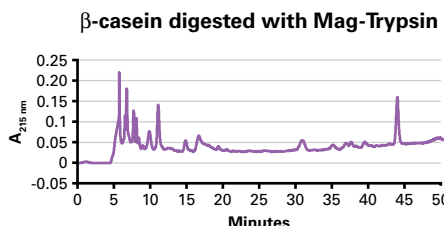
- Purification at neutral pH—avoid antibody aggregates
- High capacity—20–25 mg Ab/ml resin
- Broad selectivity—purify IgY, IgM, IgE, and scAb
- Yields highly stable purified antibodies
- Reusable resin

Protein Tools



ProteoGuard™ — Protease Inhibitor Cocktail

- Better protease inhibition than the leading competitor
- More flexible than tablets
- Optimized mix of five different inhibitors



Immobilized Magnetic Trypsin

- Rapid and efficient protein digestion for mass spectrometry (MS) applications
- Flexible—use the right amount of Mag-Trypsin for your application
- Eliminates trypsin contamination for downstream applications

Protein Expression, Purification & Analysis Products Ordering Information		
Product	Size	Cat. No.
Protein Expression Kits & Accessories		
HAT-Tagged Bacterial Expression		
HAT Protein Expression & Purification System	each	631205
pHAT20 Vector	20 µg	631202
His-Tagged Bacterial Expression		
pET Express & Purify Kit—His60	20 purifications	631431
pET Express & Purify Kit—His60 (In-Fusion® Ready)	20 purifications	631428
pET Express & Purify Kit—HisTALON	20 purifications	631430
pET Express & Purify Kit—HisTALON (In-Fusion Ready)	20 purifications	631429
His-Tagged Baculovirus Expression		
BacPAK™ Baculovirus Expression System	each	631402
BacPAK6 DNA (Bsu36 I digest)	5 transfections	631401
Baculovirus Titration Kits		
BacPAK Baculovirus Rapid Titer Kit	5 assays	631406
BacPAK qPCR Titration Kit	200 rxns	631414
Insect Cells & Insect Media		
IPLB-Sf21 Insect Cells	1 vial	631411
BacPAK Complete Medium	1 L	631403
BacPAK Grace's Basic Medium	500 ml	631404
His-Tagged Protein Products		
Cobalt Resin—TALON		
TALON® Metal Affinity Resin	10 ml	635501
	25 ml	635502
	100 ml	635503
	250 ml	635504
	2 x 250 ml	635652
	4 x 250 ml	635653
TALON Superflow Metal Affinity Resin	25 ml	635506
	100 ml	635507
	250 ml	635670
	2 x 250 ml	635669
	4 x 250 ml	635668
TALON CellThru	10 ml	635509
	100 ml	635510
TALON Magnetic Beads	2 x 1 ml	635636
	6 x 1 ml	635637
Prepacked Gravity & Spin Columns—TALON		
HisTALON™ Gravity Columns	5 x 1 ml columns	635655
HisTALON Gravity Column Purification Kit	5 x 1 ml columns ¹	635654
TALON Spin Columns	10 x 0.5 ml columns	635601
	25 x 0.5 ml columns	635602
	50 x 0.5 ml columns	635603
TALON Single Step Columns (5 ml)	2 columns	635631
	25 columns	635628
TALON Single Step Columns (20 ml)	10 columns	635632

Protein Expression, Purification & Analysis Products Ordering Information		
Product	Size	Cat. No.
His-Tagged Protein Products...continued		
FPLC Cartridges—TALON		
HisTALON Superflow Cartridges	5 x 1 ml cartridges	635650
	1 x 5 ml cartridge	635683
	5 x 5 ml cartridges	635682
HisTALON Superflow Cartridge Purification Kit	5 x 1 ml cartridges ¹	635649
	5 x 5 ml cartridges ²	635681
Disposable Empty Columns—TALON		
CellThru 10-ml Disposable Columns	20 columns	635513
TALON 2 ml Disposable Gravity Column	50 columns	635606
Nickel Resin—His60 Ni		
His60 Ni Superflow Resin	10 ml	635659
	25 ml	635660
	4 x 25 ml	635661
	250 ml	635662
	2 x 250 ml	635663
	4 x 250 ml	635664
Prepacked Gravity Columns—His60 Ni		
His60 Ni Gravity Columns	5 x 1 ml columns	635657
His60 Ni Gravity Column Purification Kit	5 x 1 ml columns ¹	635658
FPLC Cartridges—His60 Ni		
His60 Ni Superflow Cartridges	5 x 1 ml cartridges	635675
	1 x 5 ml cartridge	635680
	5 x 5 ml cartridges	635679
His60 Ni Superflow Cartridge Purification Kit	5 x 1 ml cartridges ¹	635674
	5 x 5 ml cartridges ²	635678
Buffers		
HisTALON Buffer Set	20 purifications	635651
His60 Ni Buffer Set	20 purifications	635665
xTractor Buffer	100 ml	635656
	250 ml	635671
	500 ml	635625
xTractor Buffer Kit ³	10 extractions	635623
TALON Magnetic Beads Buffer Kit	each	635638
Detection		
6xHis Monoclonal Antibody (Albumin Free)	200 µg	631212
6xHis mAb-HRP Conjugate	100 µl	631210
6xHN Polyclonal Antibody	200 µl	631213
FLAG-Tagged Protein Products		
Expression		
pCMV-DYKDDDDK Vector Set	each	635688
Purification		
Anti-DYKDDDDK Beads	1 ml	635686
Detection		
Anti-DYKDDDDK Antibody	200 µg	635691
Buffers		
Immunoprecipitation Buffer Set	30 rxns	635687

Protein Expression, Purification & Analysis Products Ordering Information		
Product	Size	Cat. No.
Myc-Tagged Protein Products		
Expression		
pCMV-Myc Vector Set	each	635689
pCMV-Myc & pCMV-HA Vector Set	each	631604
Purification		
c-Myc Monoclonal Antibody-Agarose Beads	1 ml	631208
Detection		
c-Myc Monoclonal Antibody	200 µg	631206
HA-Tagged Protein Products		
Expression		
pCMV-HA Vector Set	each	635690
pCMV-Myc & pCMV-HA Vector Set	each	631604
Detection		
HA-Tag Polyclonal Antibody	100 µg	631207
GST-Tagged Protein Products		
Purification Resins		
Glutathione-Superflow Resin	10 ml	635607
	100 ml	635608
GST Purification Kit	5 purifications	635619
Antibody Purification Products		
Purification Resins		
Thiophilic Superflow Resin	10 ml	635616
	100 ml	635617
Thiophilic Uniflow Resin	100 ml	635614
Posttranslational Modification Enrichment Kits		
Glycoprotein Enrichment & Detection		
Glycoprotein Enrichment Resin	10 ml	635647
Glycoprotein Western Detection Kit	20 rxns	635648
Phosphopeptide Enrichment—Magnetic Beads & Spin Columns		
Magnetic Phosphopeptide Enrichment Kit ⁴	each	635643
Phosphopeptide Enrichment Spin Columns	25 columns	635634
Phosphopeptide Enrichment Buffer Kit	each	635635
Phosphoprotein Enrichment—Magnetic Beads		
TALON PMAC Magnetic Phospho Enrichment Kit ⁵	each	635641
Phosphoprotein Enrichment—Gravity Columns		
Phosphoprotein Enrichment Kit	6 preps	635624
Phosphoprotein Enrichment Starter Kit	1 purification	635666
Phosphoprotein Kit—Buffer A	500 ml	635626

Protein Expression, Purification & Analysis Products Ordering Information

Product	Size	Cat. No.
Protein Extraction & Digestion Reagents		
Cell Lysis Buffers		
xTractor Buffer	100 ml	635656
	250 ml	635671
	500 ml	635625
xTractor Buffer Kit ³	10 extractions	635623
Protease Inhibitors		
ProteoGuard™ EDTA-Free Protease-Inhibitor Cocktail	100 µg	635672
	10 x 100 µg	635673
Protease Inhibitors		
Mag-Trypsin	5 ml	635646

- 1 In addition to the cartridges or columns, this kit contains sufficient buffers for 20 purifications.
- 2 In addition to the cartridges, this kit contains sufficient buffers for 5 purifications.
- 3 The xTractor Buffer Kit contains xTractor Buffer (200 ml), lysozyme, and DNase I.
- 4 The Magnetic Phosphopeptide Enrichment Kit contains TALON Phospho Magnetic Beads (2 x 1 ml), Binding/Wash Buffer, and Elution Buffer.
- 5 The TALON PMAC Magnetic Phospho Enrichment Kit contains TALON Phospho Magnetic Beads (2 x 1 ml), Extraction/Loading Buffer, Wash Buffer, and Elution Buffer.

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