

# PuraPlate™ Ligand Screening Kit

- Versatile Screening platform to suit your needs
- High Throughput Chromatography
- Fast and effective media selection
- Easy process optimisation
- High Binding and Recovery capacities
- Broad range of IEX, HIC, Affinity Mimetic Ligands™
- Design based on in-house technology



## PuraPlate™ Ligand 96-Well High Throughput Chromatography Screening Kit

*By synthetically “mimicking” and enhancing the molecular affinity of binding ligands toward biomolecules our innovative Mimetic Ligand™ adsorbents provide better separation at higher yields to help conquer your toughest protein purification challenges.*

*PuraPlate™ Ligand Screening Kits are readily available as either standard or custom designed adsorbent arrays containing a broad range of Mimetic Ligands™ for your specific requirements.*

*PuraPlate™ Ligand Screening Kit applications are designed on the in-house screening platform utilised by ProMetic Biosciences during proven custom ligand/adsorbent development programs.*

*PuraPlate™ Ligand Screening Kit provides an ideal 96-well platform for “high throughput chromatography” for performing sample analysis and easy process optimisation, using a diverse range of conditions in the fastest possible time.*

## PuraPlate™ Mimetic Ligands

### Properties of Mimetic Ligand™ Adsorbents

**ROBUST** - Mimetic Ligand adsorbents are biologically inert, very durable, have excellent liquid flow properties, and are resistant to most chemical treatments. Mimetic Ligand adsorbents are stable in the pH range 2 – 14, can be treated with denaturants (8 M urea), detergents (Triton, SDS) and can be sterilised by autoclaving.

**DEFINED STRUCTURE** - Each ligand structure has been designed and synthesised in-house and is of known purity. These factors allow precise control of immobilised ligand concentration providing accurate batch reproducibility and hence chromatographic reproducibility.

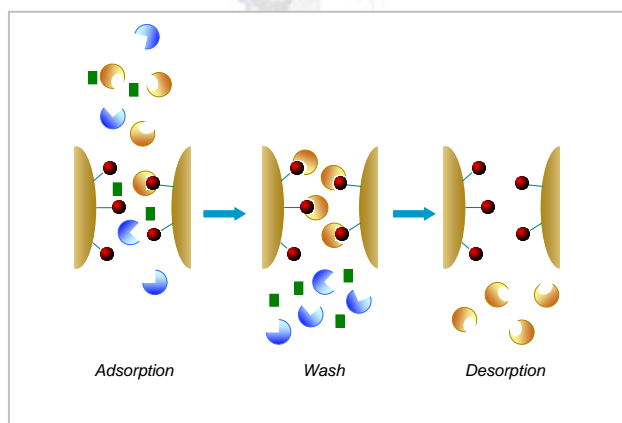
**HIGH CAPACITIES** - In general, Mimetic Ligand adsorbents capacities are higher than other affinity adsorbents. Depending upon applied sample purity, type of protein and operational conditions, capacities can exceed 50 mg protein per packed gel.

**LOW LIGAND LEAKAGE** - Mimetic Ligand adsorbents are immobilised by a defined and highly stable spacer-arm linkage which eliminates detectable ligand leakage across a wide pH range.

**HIGH RECOVERIES** - Protein absorption may be performed at physiological pH without the need for denaturants, leading to high recoveries of activity.

### About Affinity Chromatography

Affinity chromatography is used principally for the separation and isolation of proteins. The technique relies on the ability of proteins to recognise and bind to other molecules (ligands) in a specific and reversible manner. The ligand is normally bound by the protein at a “specific” site often within a fold of the protein.



*Schematic Diagram of Affinity Chromatography*

### ProMetic BioSciences

Since 1987 ProMetic has been pioneering design, development and manufacture of affinity purification technology for large scale bioprocessing as well as R&D at lab-scale in the biotechnology industry. Our patented Mimetic Ligand™ technology synthetically “mimics” and enhances the natural molecular affinity of binding ligands towards targeted biomolecules.

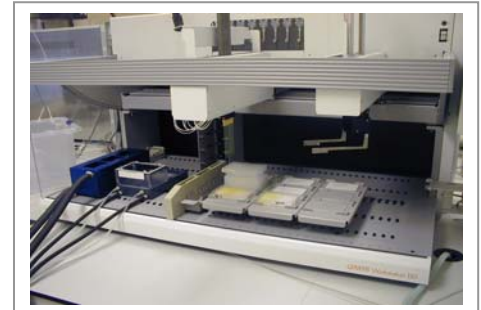
The Result: Optimised binding and yields for all your biomolecular purification needs. The key to our success in biomolecule purification lies in the development of an extensive Chemical Combinatorial Library™. Through years of dedication, research and development we have systematically screened countless ligand arrays and utilised our computer modelling processes to design new ligand structures. All of these principles have now been applied to the PuraPlate™ Ligand Screening Kit design to provide customers the capability of utilising the technology and products developed by ProMetic.

- Broad range of ligand structures and specificities
- Robust and stable (pH 2 – 14)
- High Capacities (typically 20-50 mg)
- Excellent Recoveries
- High flow with PuraBead® cross linked agarose
- Dedicated to ISO9001:2000

# PuraPlate™ Ligand Screening Kits

## ● PuraPlate™ - Universally Applicable

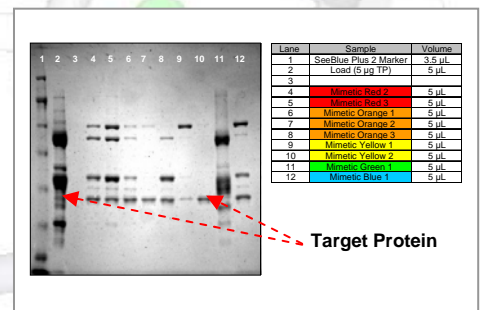
PuraPlate Screening Kits are designed for ease of application for feedstocks and buffers using manual pipettes, electronic pipettes, or direct transfer by automative liquid handling workstations.



Sample Application using Automative Equipment

## ● PuraPlate™ - Rapid Screening

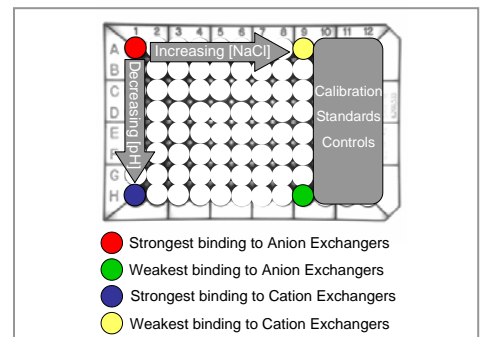
PuraPlate Screening Kits provide quick identification of suitable adsorbents for your target molecule by screening multiple media columns in parallel, using many available analytical techniques (SDS-PAGE, ELISA and 96-well variants of this technique), in comparison to sequential column runs utilised in conventional liquid chromatography.



Mimetic Ligand™ SDS-PAGE Target Protein Recovery

## ● PuraPlate™ - Easy Optimisation

PuraPlate Screening Kits provide single “run” method optimisation of binding, washing and elution conditions (pH, ionic strength), following adsorbent identification (method scouting).



Ion Exchanger Optimisation of Binding Conditions

## ● PuraPlate™ - Scaleability

Selected adsorbent and optimised conditions highlighted by the PuraPlate Screening Kit can be applied to conventional liquid chromatography systems for confirmation, further development and scale up using Prometics 1ml screening columns or larger beds.

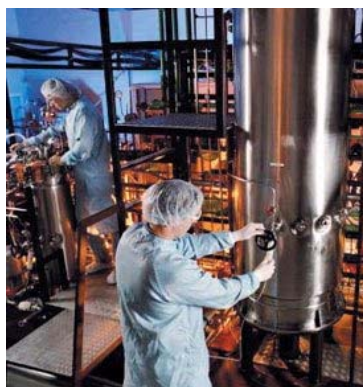


Scale-Up to Conventional Chromatography Systems

# PuraPlate™ Information

## Quality Systems

Prometic Biosciences is ISO 9001:2000 accredited, all work follows GLP/cGMP principles and adsorbents are manufactured in clean room conditions.



## ProMetic Products & Services

### PIKSI-M Kit –

Integrated unit containing 1 mL gravity columns of ten different Mimetic Ligand™ adsorbents.

### Mimetic Screening Column Kit –

Contains 1 mL pre-packed columns of ten different Mimetic Ligand™ adsorbents, suitable for attachment to automated chromatography work stations (*Industry Standard Connectors*).

### Off-the-shelf Media –

A huge range of Mimetic Ligand™ adsorbents can be supplied in any volume for your large-scale bioprocess. Please contact us for your specific needs.

### Custom Media Development Programs –

Alternatively, a Mimetic Ligand™ affinity adsorbent can be specifically designed, developed and manufactured for the purification of your product. Our Chemical Combinatorial Library™ combined with a rational design approach, can give you a fully validated customised affinity adsorbent that is suitable for use in the production of therapeutic biopharmaceuticals.

[www.prometic.com](http://www.prometic.com)

## Ordering Information - PuraPlate™

Media (gel code)	Description	Product Code
<b>Multiple Media Plates</b>		
Mimetic Ligand Screening Kit	Synthetic Affinity Ligands including Mimetics Red 2,3, Orange 1,2,3, Yellow 1,2, Green 1, Blue 1.	2210
<b>Single Media Plates - Mimetics</b>		
Mimetic Red 2 (0020)	Synthetic Affinity Ligand	2209
Mimetic Red 3 (0013)	Synthetic Affinity Ligand	2211
Mimetic Orange 1 (0030)	Synthetic Affinity Ligand	2212
Mimetic Orange 2 (0040)	Synthetic Affinity Ligand	2213
Mimetic Orange 3 (0050)	Synthetic Affinity Ligand	2214
Mimetic Yellow 1 (0060)	Synthetic Affinity Ligand	2215
Mimetic Yellow 2 (0070)	Synthetic Affinity Ligand	2216
Mimetic Green 1 (0080)	Synthetic Affinity Ligand	2217
Mimetic Blue 1 (0090)	Synthetic Affinity Ligand	2218
Mimetic Blue AP A6XL (0110)	Synthetic Affinity Ligand	2221
Mimetic Blue SA A6XL (0120)	Synthetic Affinity Ligand	2219
Mimetic Blue SA P6XL (3120)	Synthetic Affinity Ligand	2220
<b>Single Media Plates - IEX</b>		
DEAE PuraBead HF (3451)	Weak Anion Exchanger	2202
SP PuraBead HF (3453)	Strong Cation Exchanger	2208
<b>Single Media Plates - HIC</b>		
Phenyl Agarose 6XL (0405)	6-carbon ring hydrophobic	2222
Butyl Agarose 6XL (0415)	4-carbon ring hydrophobic	2223
Hexyl Agarose 6XL (0425)	6-carbon ring hydrophobic	2224
Octyl Agarose 6XL (0435)	8-carbon ring hydrophobic	2225
Decyl Agarose 6XL (0445)	10-carbon ring hydrophobic	2226
<b>Single Media Plates - MABsorbents</b>		
MABsorbent A1P (3900)	Antibody purification, preferably murine	2203
MABsorbent A2P (3901)	Antibody purification, preferably human/humanised	2204
MABsorbent A2P HF (3903)	Antibody purification, preferably human/humanised	2205
<b>Single Media Plates - Affinity</b>		
Para-aminobenzamidine 6XL (0320)	Purification or removal of serine proteases	2206
Aminophenylboronate 6XL (0355)	Purification or removal of glycoproteins or other entities containing 1,2 and 1,3 cis-diol moieties	2207

## Ordering Information – ProMetic Products

PIKSI-M Kit (10 x 1 mL columns in integrated unit- gravity feed)	1000-00001
Mimetic Screening Column Kit (10 x 1 mL pre-packed columns)	1003-00001
Off-the-shelf Media (available in any volume required)	Contact us for information

## International Sales and Technical Support:

ProMetic BioSciences LTD  
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 Isle of Man, IM9 2AP, British Isles  
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