

# HPLC Column Selection Tree

| Sample MW            | Sample Solubility             | Separation Mode                            | Our Recommended Column         | Page   |  |   |
|----------------------|-------------------------------|--|--------------------------------|--|--|---|
| MW < 5000            | Organic-Soluble               | Hexane-Soluble                             | Normal Phase Adsorption        | Kinetex HILIC _____ 196<br>Luna Silica(2) _____ 209<br>Onyx Silica _____ 227   |  |   |
|                      |                               |  | Normal Phase Bonded            | Luna CN, NH <sub>2</sub> , HILIC _____ 209   |  |   |
|                      |                               | Methanol Methanol/H <sub>2</sub> O Soluble | Reversed Phase Bonded          | Kinetex C18, XB-C18, C8 _____ 196<br>Synergi Max-RP, Fusion-RP _____ 264<br>Luna C8(2), C18(2) _____ 209<br>Gemini C18, Gemini NX-C18 _____ 184<br>Lux _____ 332   |  |   |
|                      | Chiral                        |  |                                |  |  |   |
|                      | THF-Soluble                   | Gel Permeation GPC                         | Phenogel 50 Å, 100 Å _____ 231 |  |  |   |
|                      | Aqueous-Soluble               | Non ionic                                  | Reversed Phase                 | Kinetex C18, XB-C18, C8, PFP, Phenyl-Hexyl- _____ 196<br>Synergi Polar-RP, Hydro-RP _____ 264<br>Luna C8(2), C18(2), Luna PFP(2) _____ 209<br>Gemini C18, Gemini NX-C18 _____ 184<br>Onyx C8, C18 _____ 227<br>Lux _____ 332 |  |   |
|                      |                               |  | Chiral                         |  |  |   |
|                      |                               |  | Ionic                          | Ion Pairing / Reversed Phase   | Kinetex C18, XB-C18, C8 _____ 196<br>Synergi Max-RP, Hydro-RP _____ 264<br>Luna C8(2), C18(2) _____ 209<br>Gemini C18, Gemini NX-C18 _____ 184<br>Onyx C8, C18 _____ 227 |   |
|                      |                               | Ion-Exchange                               |                                | Luna SCX, NH <sub>2</sub> _____ 209<br>PhenoSphere SAX _____ 237   |  |   |
|                      |                               | HILIC                                      |                                | Kinetex HILIC _____ 196<br>Luna HILIC _____ 209  |  |   |
|                      |                               | Chiral                                     |                                | Lux _____ 332<br>Chirex _____ 328  |  |   |
|                      |                               | Peptides                                   | Reversed Phase                 | Jupiter Proteo _____ 307<br>Gemini C18 _____ 184<br>Aeris PEPTIDE _____ 296  |  |   |
|                      |                               | MW > 5000                                  | Organic-Soluble                | Gel Permeation Chromatography (GPC)  | Unknown MW Range   | Phenogel Linear (2) _____ 231<br>Shodex GPC _____ 256       |
|                      |                               |  |                                |  | Known MW Range   | Specific Pore: Phenogel _____ 231<br>Shodex GPC _____ 256   |
|                      |                               |  | Aqueous-Soluble                | Gel Filtration Aqueous GFC/SEC   | pH 2-7.5   | BioSep-SEC-S Series _____ 305<br>Yarra SEC Series _____ 310 |
| pH > 7.5             |                               |  |                                |  |  | PolySep-GFC-P _____ 240                                     |
| Ion-Exchange         |                               |  |                                |  | Cation-Exchange  | Shodex IEC CM-825 _____ 260                                 |
|                      | Anion-Exchange                |  |                                | Shodex IEC DEAE _____ 260<br>Clarity Oligo-WAX _____ 315   |  |   |
| Reversed Phase       | pH 2-9                        |  |                                | Aeris WIDEPOR C4, XB-C8, XB-C18 _____ 296<br>Jupiter 300 C4, C5, C18 _____ 307   |  |   |
|                      |                               |  |                                | pH > 9   | Hamilton PRP-3 _____ Call  |   |
|                      | Hydrophobic Interaction (HIC) |  |                                | Shodex HIC _____ 260   |  |   |
| Affinity/Bioaffinity | Shodex AFpak _____ 260        |  |                                |  |  |   |