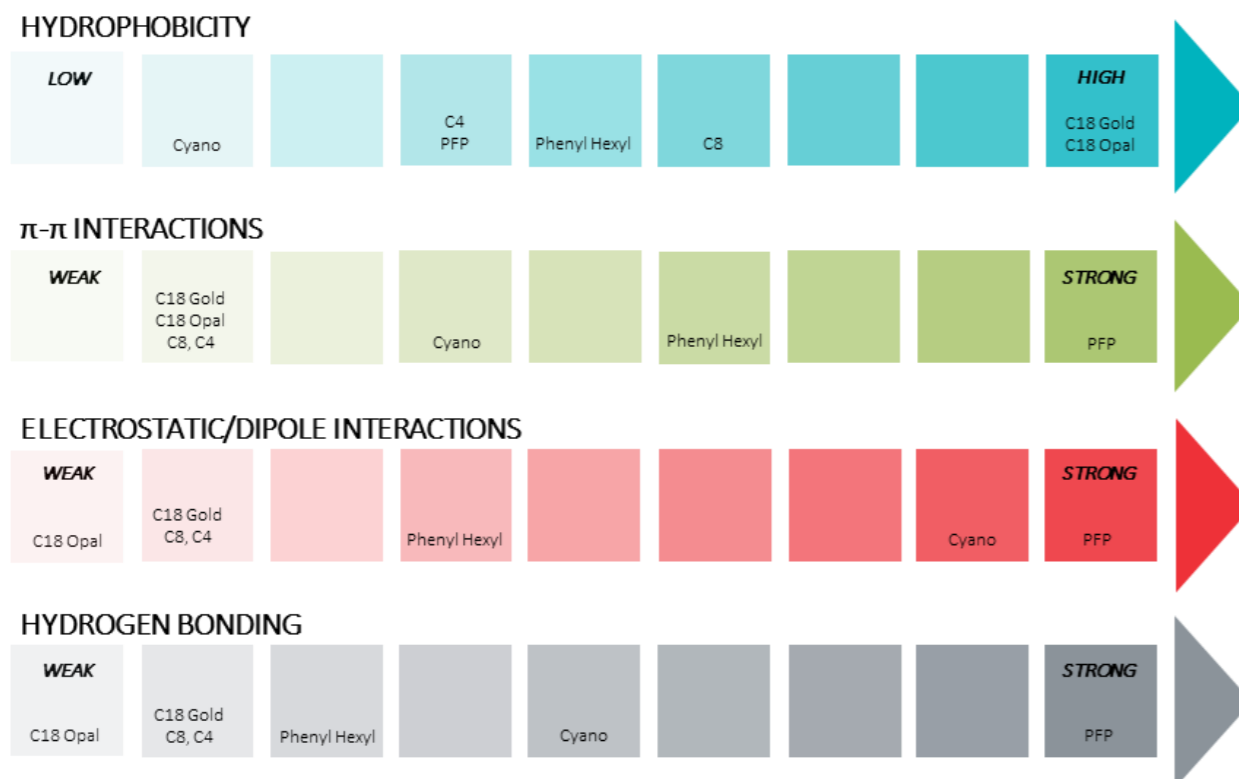


SVEA™ columns gives excellent selectivity across a wide range of chemistry needs and fits a wide range of applications.



# SVEA™

SWEDISH EXCELLENCE IN NANOPOROUS SILICA  
(U)HPLC Columns

SVEA™ analytical columns provide excellent chromatographic performance with sharp peak shapes and robust performance under extreme pH conditions (<1 and > 10 respectively).

Nanologica manufactures spherical porous silica particles with controlled pore size, particle size, and particle size distribution, resulting in excellent chromatographic properties. The unique surface chemistry and controlled particle properties result in low back pressures and high plate numbers and the exceptionally strong silica backbone results in long life cycles of the SVEA™ columns.

The extensive experience and knowledge in silica chemistry, along with internal control of the entire value chain, guarantees exceptional quality and excellent batch to batch reproducibility.



ORDER AND  
INQUIRIES

CONTACT  
DETAILS

Nanologica AB  
Forskargatan 20G  
SE-151 38 SÖDERTÄLJE  
Sweden

+ 46 8 410 749 49

info@nanologica.com  
www.nanologica.com



NANOLOGICA

# SUGGESTED APPLICATIONS

| Phase      | Characteristics  | Suggested applications   |
|------------|--|--|
| C18 Gold   | General first choice column. High hydrophobic retention. Wide range of analytes. Excellent peak shape for acids and bases. High carbon content. Withstands temperatures up to 60 °C. Long life time. Widely used for the separation of various medicines, foods and cosmetics.   | Cephalosporins, preservatives, sunscreens, amoxicillin, nitrofurantoin, amino acids, flavonoids, polycyclic aromatic hydrocarbons, carbamates, coal phenols, aldonic acids, tropisetron, acetylsalicylic acid, ibuprofen, base peptides, water-soluble vitamins, Chinese herbs (Eucommia), chlorogenic acid, traditional Chinese medicine (astragalus), synthetic dyes, queen bee acid, methylfurfural, dimethyl fumarate, synthetic pigments, sodium cyclohexyl sulfamate, dehydroacetic acid, natamycin, taurine, carnitine, benzopyrene, adenine, guanine, hypoxanthine, nucleotides, Cefazolin, Ciprofloxacin Hydrochloride, Ethinyl Estradiol Impurity, Nicotinamide, Artemether, Benzyl Alcohol, Ceftriaxone and Sulbactam, Cholecalciferol, D-Panthenol, Vitamin E etc    |
| C18 Opal   | Recommended for high pH applications. Proprietary coating ensures solely hydrophobic interactions. Better peak shape for ionizable compounds. Withstand temperatures up to 80 °C. Can be used in aqueous conditions. Has advantages over C18 Gold in multi-component analyses. Can be used for analysis of difficult experiments, with good universality and high market utilization rate. | Macrolide antibiotics such as azithromycin US European Pharmacopoeia, azithromycin Chinese Pharmacopoeia system applicability, roxithromycin, erythromycin, aminoglycoside, antibiotics such as gentamicin, simvastatin, aflatoxin, natamycin, organic acids, chalk, alkaloids, pigments, folic acid, benzoyl peroxide, ginsenosides, irbesartan, anthocyanins, neurotransmitters, etc.  |
| C8         | Similar selectivity for lipophilic compounds as C18 Gold. Lower retention than C18 Gold. Slightly different selectivity for ionized acids and bases compared to C18 Gold. Excellent peak shape for acids and bases. High stability and longevity. Wide applicability - can be used as the first choice for C8 columns.   | Water-soluble organic acid, clozapine, cefuroxime sodium, organic acid, dichlorophenol and other phenolic compounds, triclosan, Paracetamol and Ibuprofen, etc.  |
| C4         | Recommended for separation of large peptides and proteins. Very low retention for lipophilic compounds. Can also be run in HILIC-mode. The C4 column is optimized for protein analysis with low adsorption and high recovery.  | Insulin, lactoferrin, liraglutide etc.   |
| PhHex      | Orthogonal chemistry for method development. Can be used in aqueous conditions. Recommended for separation of aromatics and/or polar analytes. Long life cycle.  | Pseudoephedrine, carbamazepine, verapamil hydrochloride, nifedipine hydrochloride, carbamate, Anagrelide Hydrochloride   |
| PFP        | Strong retention of protic compounds and analytes with high dipole moments. Strong $\pi$ -interaction with electron deficient aromatic rings. Recommended for very polar compounds.  | Analysis of four subtypes of tocopherol (vitamin E), matrine, isomers  |
| Cyano      | Very polar stationary phase. Strong dipole-dipole interactions. Orthogonal phase in RPLC method development. Recommended for HILIC and Normal Phase. High stability and longevity.   | Benzalkonium chloride, steroids, malic acid, fumaric acid, Ondansetron,  |
| Core C18   | Core shell technology provides high separation and low back pressures. Can be used in HPLC and UPLC. Excellent base stability. Widely used in the field of rapid analysis of food, drug and cosmetics  | Flavonoids such as myricetin, quercetin, apigenin, baicalein, aflatoxin, anthraquinone dyes such as alizarin, alfalfa, phenol, tea polyphenols, caffeine, gallic acid, dinitrobenzene, bisphenol A, tetracyclines, ethambutol hydrochloride, clenbuterol, salbutamol, ginsenosides, amoxicillin, clavulanate potassium, atenolol, nifedipine, nitridipine, H2 receptor blocker (fimetidine, cimetidine, ranitidine), corticosteroids (prednisone, cortisol, hydrocortisone, dehydrocortisol), ethinyl estradiol, estrogen ketone, p-aminoacetophenone, chloroquine, oleic acid, fluridic acid, hydroquinone, quinolone (2-hydroxyquinoline), sulfonamides, tetracyclines (chlortetracycline, oxytetracycline, doxycycline hydrochloride), chloramphenicol, malachite green, etc. |
| Core PhHex | Orthogonal chemistry combined with core shell technology to provide high separation and low back pressures. Can be used in aqueous conditions. Recommended for separation of aromatics and/or polar analytes. Can be used in HPLC and UPLC.  | Pseudoephedrine, carbamazepine   |

# SPECIFICATIONS

| Particle type              | Pore size | Carbon load | Surface area              | Pore volume    | End-capping | USP code | pH range | Particle sizes |
|----------------------------|-----------|-------------|---------------------------|----------------|-------------|----------|----------|----------------|
| Fully porous type B silica | 110 Å     | 19%         | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L1       | 0.9-10   | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 14%         | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L1       | 0.5-11   | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 11%         | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L7       | 1-9      | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 7%          | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L26      | 1-8      | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 16%         | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L11      | 2-8      | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 11%         | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L43      | 2-8      | 3.5, 5 µm      |
| Fully porous type B silica | 110 Å     | 7%          | 300 m <sup>2</sup> /g     | 0.85 ml/g      | Yes         | L10      | 2-7.5    | 3.5, 5 µm      |
| Coreshell type B silica    | 80-100 Å  | 6-8%        | 110-150 m <sup>2</sup> /g | 0.25-0.32 ml/g | Proprietary | L1       | 1-10     | 2.6 µm         |
| Coreshell type B silica    | 80-100 Å  | 4-5%        | 110-150 m <sup>2</sup> /g | 0.25-0.32 ml/g | Proprietary | L11      | 1.5-9    | 2.6 µm         |