

## Column recommendation

The United States Pharmacopeia (USP) is a standard source for many pharmaceutical methods and it specifies columns by packing materials rather than by manufacturer. Find below a list of the recommended PSS columns suitable for methods listed with the USP.

USP column material specifications and corresponding PSS column material

USP Number	USP Description	PSS Column
L20	Dihydroxypropane groups chemically bonded to porous silica particles, 3 to 10µm in diameter	PROTEEMA
L21	A rigid, spherical styrene-divinylbenzene copolymer, 5 to 10 µm in diameter.	SDV
L22	A cation group resin made of porous polystyrene gel with sulfonic acid groups, about 10 µm in size.	MCX
L23	An ion exchange resin made of porous polymethacrylate or polyacrylate gel with quaternary ammonium groups, about 10 µm in size.	SUPREMA MAX
L25	Packing having the capacity to separate compounds with a MW range from 100 to 5 000 Da (as determined by polyethylene oxide), applied to neutral, anionic and cationic water-soluble polymers.	SUPREMA (30 / 100 Å) and SUPREMA MAX
L33	Packing having the capacity to separate proteins by molecular size over a range of 4 000 to 400 000 Da. It is spherical, silica-based, and processed to provide pH stability.	PROTEEMA
L37	Polymethacrylate gel packing having the capacity to separate proteins by molecular size over a range of 2 000 – 40 000 Da MW	SUPREMA (30 Å)
L38	Methacrylate-based size exclusion packing for water-solubles	SUPREMA
L39	Hydrophilic polyhydroxymethacrylate gel of totally porous spherical resin	SUPREMA
L58	Strong cation-exchange resin consisting of sulfonated cross-linked styrene-divinylbenzene copolymer in the sodium form, about 6 to 30µm diameter.	MCX
L59	Packing having the capacity to separate proteins by molecular weight over the range of 5 to 7 000 kDa. It is spherical (5 - 10µm), silica-based, and processed to provide hydrophilic characteristics and pH stability.	PROTEEMA

See our catalog or [www.polymer.de](http://www.polymer.de) for detailed column specifications as dimensions, particle sizes, recommended flow rates, pressure stability and more.

Contact us with any question for additional recommendations or new developments.