Concise Separations CARBOSep Columns

CARBOSep Columns for Carbohydrates Analysis

CARBOSep is the name of the complete range of columns that Transgenomic has developed for the analysis of carbohydrates. These columns employ the technique called lingand-exchange for the separation of mono-, di,-and oligosaccharides of upto 15 glucose units.

In this technique it is the different metals bonded to the polymeric matrix of the packing which react selectively with the weakly negatively charged hydroxyls of the sugar molecules. The selectivity is controlled by means of the appropriate choice of resin type and of the metallic species bonded to it, as well as other factors, such as the temperature of the column.

CARBOSep is the most complete range, and with the best efficiency of all those on the market.

Column	Dimensions	Cat.No.
CARBOSep CHO-620	6,5 X 300 mm	**TG-CHO-99-9753**
CARBOSep CHO-611 OH	6,5 X 150 mm	**TG-CHO-99-7752**
CARBOSep CHO-411	7,8 X 300 mm	**TG-CHO-99-9850**
CARBOSep CHO-611	6,5 X 300 mm	**TG-CHO-99-9751**
CARBOSep USP-19 CA-FORM	4,0 X 250 mm	**TG-CHO-99-8453**
CARBOSep CHO-682	7,8 X 200 mm	**TG-CHO-99-8854**
CARBOSep CHO-682	7,8 X 300 mm	**TG-CHO-99-9854**
CARBOSep CHO-820	7,8 X 200 mm	**TG-CHO-99-8855**
CARBOSep CHO-820	7,8 X 300 mm	**TG-CHO-99-9855**
COREGEL 87P	7,8 X 300 mm	**TG-CHO-99-9864**
COREGEL 87N	7,8 X 300 mm	**TG-CHO-99-9863**
COREGEL 87K	7,8 X 300 mm	**TG-CHO-99-9862**
COREGEL 87C	7,8 X 300 mm	**TG-CHO-99-9860**
COREGEL 87MM	7,8 X 300 mm	**TG-CHO-99-9865**
COREGEL 42Ag	7,8 X 300 mm	**TG-CHO-99-9851**

Precolumns for every type of column available on application.

Carbohydrate Columns Specifications Chart

Column	Application	Form	Particle size (µm)	Typical Mobile Phase	Recom´d Rate Flow (mL/min)	Recom´d Temp (°C)
CARBOSepCHO-411	oligosaccharides up to DP10, corn syrup, molasses	sodium	20	water	0.4	75
CARBOSepCHO-611	oligosaccharides up to DP5	sodium	10	water	.05	90
CARBOSepCHO-611 OH	mono and oligosaccharides w/PAD detection	sodium	10	sodium hydroxide	0.5	90
CARBOSepCHO-620	high fructose corn syrup, mono-, di-, trisaccharides and sugar alcohols	calcium	10	water	0.5	90
CARBOSepCHO-682	mono and disaccharides, sucrose, maltose lactose	lead	7	water	0.4	80
CARBOSepCHO-820	mono and disaccharides, sucrose, maltose lactose	calcium	8	water	0.5	90
CARBOSepCORGEL- 87C	simple sugars, sugar alcohols	calcium	9	water	0.6	85
ICSepCORGEL 87H1	fast analysis of organic acids, alcohols, sugar mixtures	hydrogen	9	sulfuric acid	0.6	85
ICSepCORGEL 87H3	organic acids, alcohols, sugar mixtures	hydrogen	9	sulfuric acid	0.6	85
CARBOSepCORGEL- 42Ag	oligosaccharides up to DP11	silver	20	water	0.4	75
CARBOSepCORGEL- 47K	beet sugar, cane sugar, corn syrup, molasses	potassium	8	water	0.6	85
CARBOSepCORGEL- 87N	beet sugars, mono and oligosaccharides	sodium	8	water	0.6	85
CARBOSepCORGEL- 87P	pentose, hexose, monosaccharides, alcohols	lead	8	water	0.8	85
CARBOSep USPL19	USP L-19 specifications for separationof sorbitol and mannitol	calcium	9	water	0.2	30
CARBOSepCORGEL- 87MM	mono, di, and trisaccharides, and sugar alcohols	calcium/sodium	8	water	0.5	85
ICSep ION300	glucose and fructose in organic acid mixtures	hydrogen	8	sulfuric acid	0.4	70
ICSep ION310	grape must analysis	hydrogen	8	sulfuric acid	0.8	50

MobilePhase:100%water.FlowRate:0.5mL/minute.Temperature90°C

Concise Sep. Ion Chromagography CARBOSep Columns

Compound	CHO-620 (units in minutes)	CHO-611 (units in minutes)	CHO-682 (units in minutes)	COREGEL 87H (units in minutes)	COREGEL 87P (units in minutes)	COREGEL 87N (units in minutes)	COREGEL 87K (units in minutes)	COREGEL 87C (units in minutes)
Arabinose	10.64	11.08	23.95	12.08	16.32	12.64	14.72	13.92
Digitoxose	10.26	10.18	21.95	--	15.48	11.40	12.32	14.19
Fructose	10.07	10.33	25.84	11.25	16.96	11.61	13.31	13.63
Fucose	10.57	10.96	24.16	12.80	16.44	12.34	14.39	13.82
Galactose	9.58	10.22	22.32	11.12	15.16	11.44	13.36	13.82
Glucose	8.72	9.53	19.14	10.57	13.38	10.72	12.55	11.17
Mannose	9.79	10.27	25.50	11.13	16.76	11.57	13.74	12.76
Rhamnose	9.64	9.88	22.56	11.94	15.26	11.08	12.83	12.86
Sorbose	9.50	9.93	22.38	10.08	15.24	11.08	12.66	12.86
Tagatose	11.53	10.29	--	11.15	20.80	11.36	12.82	16.46
Xylose	9.56	10.34	20.64	11.32	14.42	11.77	13.69	12.32
Cellobiose	6.65	7.17	15.58	8.43	10.98	7.90	9.26	8.94
Lactose	7.01	7.51	17.37	8.77	11.84	8.18	9.63	9.44
Lactulose	7.57	7.85	20.70	9.00	13.24	8.48	10.08	10.17
Melibiose	6.99	7.46	17.63	8.56	12.02	8.19	9.72	9.36
Trehalose	6.70	7.14	15.98	8.64	11.20	7.85	9.02	9.07
Sucrose	6.76	7.27	15.70	--	11.10	7.99	9.11	9.09
Maltose	6.89	7.37	16.61	8.57	11.54	8.08	9.48	9.17
Ribitol	10.94	10.13	30.72	12.44	20.44	11.26	11.84	15.55
Arabitol	12.32	10.52	39.82	12.65	25.24	11.64	12.10	18.36
Galactitol	13.05	10.23	52.43	11.80	31.60	11.15	11.61	20.46
Myo-inositol	10.82	11.01	35.58	11.02	20.06	12.48	14.08	14.27
Lactitol	8.55	7.87	33.23	9.26	19.50	8.45	9.34	12.17
Maltitol	8.54	7.68	30.38	9.00	17.76	8.28	9.06	12.22
Mannitol	11.84	9.90	40.03	11.66	24.98	10.81	11.42	17.81
Sorbitol	13.64	10.38	56.56	11.77	33.40	11.32	11.86	21.34
Xylitol	13.93	11.01	51.15	12.82	31.10	12.16	12.64	21.30
Amiprylose	4.50	4.20	--	6.86	9.46	5.74	6.42	7.68
Melezitose	5.78	6.01	13.85	--	13.08	6.81	7.82	8.20
Maltotriose	5.91	6.22	15.17	7.72	10.54	6.98	8.16	8.28
Raffinose	5.86	6.10	14.40	--	10.22	6.88	7.92	8.24
Stachyose	5.28	5.39	13.41	--	9.58	6.33	7.28	7.77
Maltotetrose	5.37	5.54	14.07	7.30	9.84	6.42	7.46	7.80
Maltopentose	5.00	5.08	13.08	7.10	9.34	6.11	7.02	7.53
Maltohexose	4.78	4.87	12.24	7.00	8.80	5.94	6.74	7.38
Maltoheptose	4.66	4.60	11.74	6.96	8.52	5.84	6.61	7.28
Nitrate	4.55	4.20	10.30	6.85	8.40	5.70	6.40	7.30

MobilePhase:100%water.FlowRate:0.5mL/minute.Temperature90ºC