

Cyclolab

a cyclodextrin R&D company

Product list 2017

valid from 1st May, 2017

Dear Customer,

Over the next pages you will find a range of cyclodextrin derivatives of different quality grades and target applications. Hereby, we would like to provide some guidance and ideas what to expect of the products and why to use them. For updates, news and also to process orders, please visit www.cyclolab.hu. For any questions, you can always write to us at info@cyclolab.hu.

Pharma grade cyclodextrins:

Among pharma grade CDs, we provide all five kinds of cyclodextrins that are included in either USP, EP or JP. This includes Cyclolab's own Betadex Sulfobutyl Ether Sodium (Dexolve™), manufactured with a proprietary technology. These are offered in kg quantities based on individual enquiries at info@cyclolab.hu. Should you require another CD type for pharma purposes, please contact us for details.

Standard grade cyclodextrins:

Among standard grade CDs, we provide a wider range of cyclodextrin derivatives for R&D purposes, early phase industrial developments for pharma, food, cosmetic and household industries or raw materials for further derivatization (e.g. for Sugammadex) among other potential applications. Besides the five pharma CDs, a great number of further products are available in high purity. These are offered in kg quantities based on individual enquiries at info@cyclolab.hu. To discuss needs and proposals of unlisted CDs at kg scale, please contact us.

Fine chemical grade cyclodextrins:

Non-ionic, anionic and cationic derivatives:

At Cyclolab you can find the widest portfolio worldwide of available cyclodextrin derivatives differing in type, number and position of substituents for your research purposes. The current catalogue contains only the most frequently asked products. If your needs require something not listed, please contact us at info@cyclolab.hu to find out if we can prepare the CD you desire or have it on stock already.

Single isomer CD derivatives:

Cyclolab also offers a great variety of single isomer CDs, ideal for sophisticated analytical purposes (e.g. enantioseparation) or to study the interaction between host and guest which is more troublesome with randomly substituted derivatives. Several single isomer derivatives are also included among non-ionic, anionic and cationic derivatives. Similarly, the current catalogue contains only the most frequently asked products, for specific needs, please contact us at info@cyclolab.hu.

Fluorescent tagged derivatives:

A recently developed group of compounds includes to most traditional CDs tagged with different kind of fluorophores, ideal for diagnostic purposes or for tracing the route of CDs in *in vitro*, *ex vivo* and *in vivo* studies. Any kind of CD derivative can be prepared upon request in this manner. Fluorescent-tagged polymers are also available.

Cyclodextrin polymers:

For formulation and industrial purposes, cyclodextrin polymers of different kinds and different charge are available. The products are CD monomers crosslinked with epichlorohydrin forming a web with complex forming ability which may be superior to the original CDs.

Maltooligomers:

Maltooligomers are open ringed cyclodextrins, acyclic molecules having linear structure. These compounds may fit for interaction studies (including solubilization), analytical purposes or enzymatic studies.

Per-Anhydro CDs:

Per-Anhydro CDs are modified not on hydroxyls but on the glucose core. This core-modification results in significant changes such as: moderate hydrophobic outer surface and rather hydrophilic inner cavity. Application of peranhydro CDs as complexing agents has been evidenced in immobilizing toxic metals: lanthanides, uranyl- and cobalt-salts in aqueous solutions, binding radioactive metal wastes, heavy metal toxicants, in therapy as antidotes for metal intoxications as chelating agents, and in imaging, diagnostics: as gadolinium complexing agent in MRI tests. In vitro studies show that anhydro-CDs have affinity toward calcium, potassium, and sodium cations.

CD complexes:

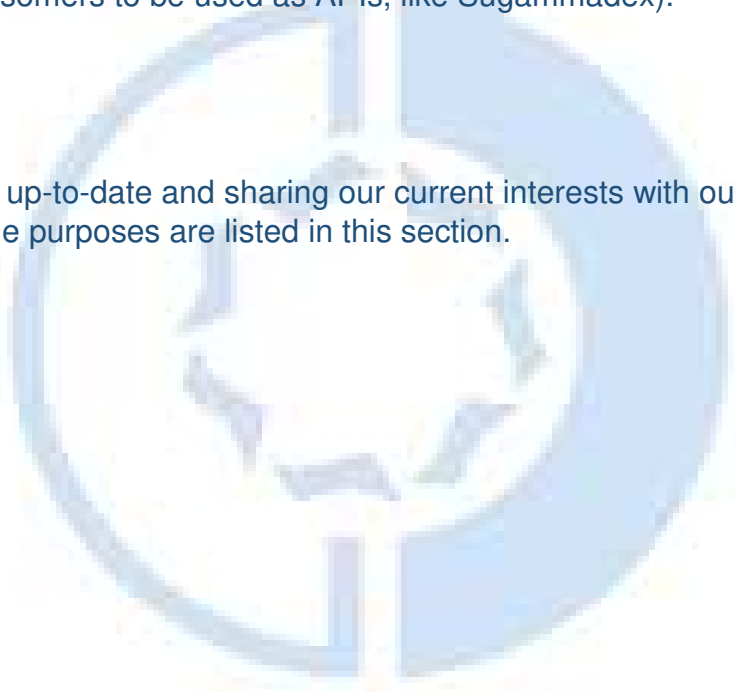
Cyclolab prepares a great number of water soluble solid complexes of hardly soluble or insoluble active ingredients, fragrances, lipoic acids, vitamins, carotenoids, pharmaceutical actives, etc. A short list of these are included in the catalogue, for any other specific guest to be encapsulated (for example **essential oils, plant extracts** etc.) please reach out to us for discussion at info@cyclolab.hu.

HPLC columns:

Specific columns, designed for efficient separation and analysis of cyclodextrins particularly. The sophisticated combination of electrostatic and host-guest interaction yields an excellent separation of fractions differing in the number of substituents (separation of randomly substituted derivatives) or among the main product and its impurities (e.g. in case of single isomers to be used as APIs, like Sugammadex).

Special offers:

As part of keeping the catalogue up-to-date and sharing our current interests with our partners, CD derivatives of unique purposes are listed in this section.



Pharma grade cyclodextrins:

Product code	Product name	Abbreviation	CAS no	Price in EUR/g
CODE 37	Alpha-cyclodextrin	ACD	10016-20-3	Contact us!
CODE 33	Beta-cyclodextrin	BCD	7585-39-9	Contact us!
CODE 36	Gamma-cyclodextrin	GCD	17465-86-0	Contact us!
CODE 47	Sulfobutylated beta-cyclodextrin sodium salt (DS~6.5)	SBECD	182410-00-0	Contact us!
CODE 27	(2-Hydroxypropyl)-beta-cyclodextrin (DS~4.5)	HPBCD	128446-35-5	Contact us!



Standard grade cyclodextrins:

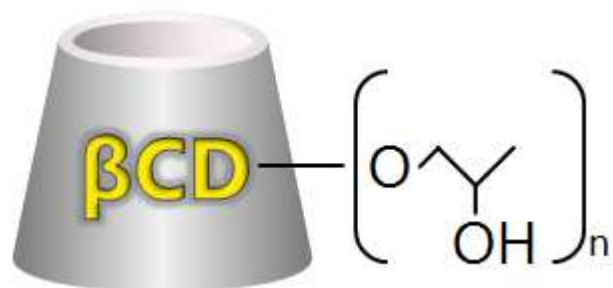
Product code	Product name	Abbreviation	CAS no	Price in EUR/g
CODE 37	Alpha-cyclodextrin	ACD	10016-20-3	Contact us!
CODE 33	Beta-cyclodextrin	BCD	7585-39-9	Contact us!
CODE 36	Gamma-cyclodextrin	GCD	17465-86-0	Contact us!
CODE 47	Sulfobutylated beta-cyclodextrin sodium salt (DS~6.5) - Research grade	SBECD	182410-00-0	Contact us!
CODE 50	Sulfobutylated beta-cyclodextrin sodium salt (DS~4)	SBECD4	182410-00-0	Contact us!
CODE 41	(2-Hydroxypropyl)-alpha-cyclodextrin (DS~4.5)	HPACD	99241-24-4	Contact us!
CODE 27	(2-Hydroxypropyl)-beta-cyclodextrin (DS~4.5)	HPBCD	128446-35-5	Contact us!
CODE 38	(2-Hydroxypropyl)-gamma-cyclodextrin (DS~4.5)	HPGCD	128446-34-4	Contact us!
CODE 35	Heptakis(2,6-di-O-methyl)-beta-cyclodextrin content > 35% (DS~14)	DIMEB-50	51166-71-3	Contact us!
CODE 34	Heptakis(2,3,6-tri-O-methyl)-beta-cyclodextrin	TRIMEB	55216-11-0	Contact us!
CODE 29	Methyl-beta-cyclodextrin (DS~12)	RAMEB	128446-36-6	Contact us!
CODE 50	Octakis(6-deoxy-6-chloro)-gamma-cyclodextrin	perClGCD, OClGCD		Contact us!
CODE 51	Octakis(6-deoxy-6-iodo)-gamma-cyclodextrin	perIodoGCD, OIGCD	168296-33-1	Contact us!
CODE 52	Octakis(6-deoxy-6-bromo)-gamma-cyclodextrin	perBrGCD, OBrGCD	53784-84-2	Contact us!

**Fine chemical grade cyclodextrins** (*Non-ionic derivatives*):

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-3204	Octakis(6-deoxy-6-chloro)-gamma-cyclodextrin	OCIGCD		1-49 g	72,8
				50 g-	66,2
CY-3061	Octakis(6-deoxy-6-bromo)-gamma-cyclodextrin	OBrGCD	53784-84-2	1-49 g	72,8
				50 g-	66,2
CY-3062	Octakis(6-deoxy-6-iodo)-gamma-cyclodextrin	OIGCD	168296-33-1	1-49 g	72,8
				50 g-	66,2
CY-1001	Alpha-cyclodextrin	ACD	10016-20-3	1-499 g	0,5
				500 g-	0,39
CY-2001	Beta-cyclodextrin	BCD	7585-39-9	1-499 g	0,11
				500 g-	0,085
CY-3001	Gamma-cyclodextrin	GCD	17465-86-0	1-99g	1,1
				100-499 g	0,85
CY-2002.1	Acetyl-beta-cyclodextrin (DS~7)	AcBCD		500 g -	0,55
				1-9g	27,2
				10-24g	20,5
CY-2004.0	Heptakis(2,6-di-O-methyl)-beta-cyclodextrin content > 35% (DS~14)	DIMEB-50	51166-71-3	25g-	13,6
				1-24g	15
				25-49g	11,44
CY-2004.3	Heptakis(2,6-di-O-methyl)-beta-cyclodextrin content ~95% (DS~14)	DIMEB-95	51166-71-3	50g-	10,9
				1-4g	137
				5-9g	122,6
CY-1004.1	Methyl-alpha-cyclodextrin (DS ~ 11)	RAMEA		10g-	111
				1-9g	70,4
				10-24g	60,5
CY-2004.1	Methyl-beta-cyclodextrin (DS~12)	RAMEB	128446-36-6	25g-	48,4
				0-49g	4,6
				50-99g	3
CY-3004.1	Methyl-gamma-cyclodextrin (DS ~ 12)	RAMEG		100g-	2,85
				1-9g	70,4
				10-24g	60,5
				25g-	48,4

Fine chemical grade cyclodextrins (*Non-ionic derivatives*):

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-1005.2	Hydroxypropyl-alpha-cyclodextrin (DS~4.5)	HPACD	99241-24-4	1-49g	5,32
				50-99g	4,62
				100g-	3,72
CY-2005.2	(2-Hydroxypropyl)-beta-cyclodextrin (DS~4.5)	HPBCD	128446-35-5	0-49g	2,4
				50-99g	1,8
				100g-	1,45
CY-2003	Heptakis(2,3,6-tri-O-methyl)-beta-cyclodextrin	TRIMEB	55216-11-0	1-4g	49,2
				5-9g	45
				10-24g	40,7
				25g-	34,6
CY-2018	Heptakis(2,3,6-tri-O-benzoyl)-beta-cyclodextrin	TRIBenzBCD	23666-43-5	1-5g	105
				5-10g	82
				11-50 g	69
CY-2050	6-Monodeoxy-6-monoazido-beta-cyclodextrin	MoAZBCD		1-4g	231,6
				5g-	218
CY-2051	6-Monodeoxy-6-iodo-beta-cyclodextrin	MoIBCD		1-2g	264
				3g-	191,2
CY-3005.2	(2-Hydroxypropyl)-gamma-cyclodextrin (DS~4.5)	HPGCD	128446-34-4	1-49 g	5,32
				50-99 g	4,62
				100 g-	3,72

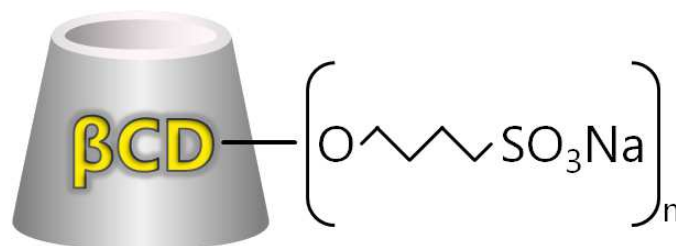


Fine chemical grade cyclodextrins (*Anionic derivatives*):

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-1006.0	Carboxymethyl-alpha-cyclodextrin sodium salt (DS~3.5)	CMACD		1-9g	32,8
				10-24g	27,3
				25g-	21,8
CY-2006.0	Carboxymethyl-beta-cyclodextrin sodium salt (DS~3.5)	CMBCD		1-9g	27,2
				10-24g	20,5
				25g-	16,32
CY-1007.0	Succinyl-alpha-cyclodextrin (DS~3.5)	SuACD		1-9g	95,2
				10g-	81,8
CY-2007.0	Succinyl-beta-cyclodextrin (DS~3.5)	SuBCD		1-9g	49
				10g-	46,5
CY-3007.0	Succinyl-gamma-cyclodextrin (DS~3.5)	SuGCD		1-9g	74,8
				10g-	68,1
CY-1012.0	(2-Carboxyethyl)-alpha-cyclodextrin (DS~3)	CEACD		1-9g	43,6
				10g-	37,4
CY-2012.0	(2-Carboxyethyl)-beta-cyclodextrin sodium salt (DS~3.5)	CEBCD		1-9g	43,6
				10-19g	37,4
				20g-	33,75
CY-1017.1	Alpha-cyclodextrin phosphate sodium salt (DS~2-6)	PACD26	199684-60-1	1-2g	190
				3g-	163,2
CY-2017.1	Beta-cyclodextrin phosphate sodium salt (DS~2-6)	PBCD26	199684-61-2	1-2g	143
				3g-	108,8
CY-3017.1	Gamma-cyclodextrin phosphate sodium salt (DS~2-6)	PGCD26	199684-62-3	1-2g	215
				3g-	209,6

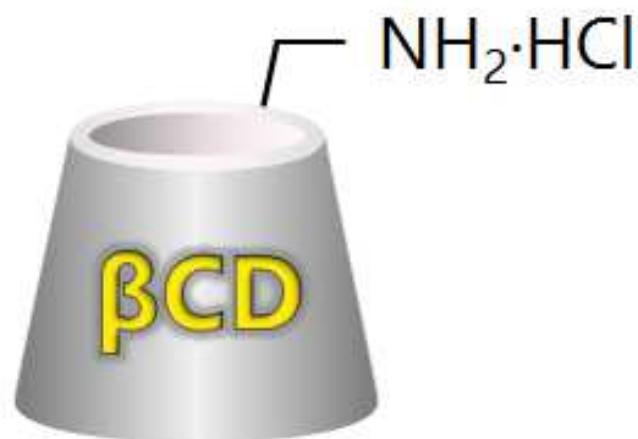
Fine chemical grade cyclodextrins (*Anionic derivatives*):

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-2041.1	Sulfobutylated beta-cyclodextrin sodium salt (DS~4)	SBECD4	182410-00-0	1-24 g	42,5
				25 g-	29,6
CY-2041.2	Sulfobutylated beta-cyclodextrin sodium salt (DS~6)	SBECD	182410-00-0	1-24 g	7
				25 g-	4,6
CY-2041.3	Sulfobutylated beta-cyclodextrin sodium salt (DS~10)	SBECD10	182410-00-0	1-24 g	42,5
				25 g-	29,6
CY-1045	Alpha-cyclodextrin sulfate sodium salt (DS~12)	SACD	699020-02-5	1-4g	171
				5g-	150
CY-2045	Beta-cyclodextrin sulfate sodium salt (DS~13)	SBCD	37191-69-8	1-4g	105
				5g-	80,4
CY-3045	Gamma-cyclodextrin sulfate sodium salt (DS~14)	SGCD		1-4g	197
				5g-	157,6



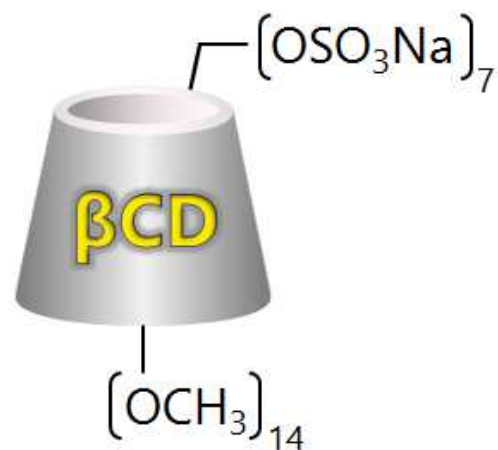
Fine chemical grade cyclodextrins (*Cationic derivatives*):

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
				Quantity	Price
CY-2024	6-Monodeoxy-6-monoamino-beta-cyclodextrin hydrochloride	MoAMBCD	29390-67-8	1-4g	450
				5-9g	300
				10g-	255
CY-2065	Heptakis(6-deoxy-6-amino)-beta-cyclodextrin heptahydrochloride	HABCD		1-4g	305
				5-9g	230
				10g-	207
CY-3065	Octakis(6-deoxy-6-amino)-gamma-cyclodextrin octahydrochloride	OAGCD		1-4g	305
				5g-	230
CY-2099	(2-Hydroxy-3-N,N,N-trimethylamino)propyl-beta-cyclodextrin chloride	QABCD		1-9 g	21,8
				10-24 g	20
				25 g-	18



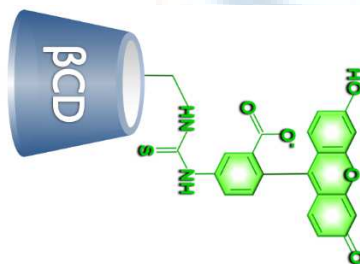
Fine chemical grade cyclodextrins *(Single isomer CD derivatives)*

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-1202	Hexakis(2,3-di-O-methyl-6-sulfo)-alpha-cyclodextrin sodium salt	HDMSACD		1-9 g	231
				10 g-	210
CY-2200	Heptakis(6-sulfo)-beta-cyclodextrin sodium salt		197587-31-8	1-9 g	264
				10 g-	240
CY-2201	Heptakis(2,3-di-O-acetyl-6-sulfo)-beta-cyclodextrin sodium salt	HDASBCD	196398-66-0	1-9 g	214,5
				10 g-	195
CY-2202	Heptakis(2,3-di-O-methyl-6-sulfo)-beta-cyclodextrin sodium salt	HDMSBCD	201346-23-8	1-9 g	214,5
				10 g-	195
CY-3202	Octakis(2,3-di-O-methyl-6-sulfo)-gamma-cyclodextrin sodium salt	ODMSGCD		1-9 g	231
				10 g-	210



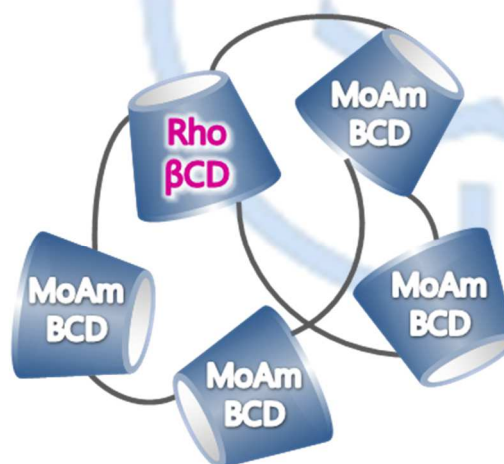
Fine chemical grade cyclodextrins *(Fluorescent tagged derivatives)*

Product code	Product name	Abbreviation	CAS no	Price in EUR/mg	
CY-F-2001	6-deoxy-6-[(5/6)-fluoresceinylthioureido]-BCD	FITC-NH-BCD		1-10 mg	27,3
				11-25 mg	24,84
				26-50 mg	22,6
CY-F-2004.1	6-deoxy-6-[(5/6)-fluoresceinylthioureido]-RAMEB	FITC-NH-RAMEB		1-10 mg	35,4
				11-25 mg	32,12
				26-50 mg	29,2
CY-F-2005.1	6-deoxy-6-[(5/6)-fluoresceinylthioureido]-HPBCD	FITC-NH-HPBCD		1-10 mg	75,7
				11-25 mg	68,8
				26-50 mg	62,56
CY-F-2006.0	6-deoxy-6-[(5/6)-fluoresceinylthioureido]-CMBCD sodium salt	FITC-NH-CMBCD		1-10 mg	89
CY-R-2001	6-deoxy-6-[(5/6)-rhodaminyllthioureido]-BCD	RBITC-NH-BCD		1-10 mg	29,6
CY-R-2004.1	6-deoxy-6-[(5/6)-rhodaminyllthioureido]-RAMEB	RBITC-NH-RAMEB		1-10 mg	43,6
CY-R-2005.1	6-deoxy-6-[(5/6)-rhodaminyllthioureido]-HPBCD	RBITC-NH-HPBCD		1-10 mg	95,4
CY-RL-2041.2	Rhodamine labeled sulfobutylated-BCD sodium salt, DS~6.5 for SB, rhodamine labeled SBECD content ~1%			1-10 mg	0,281



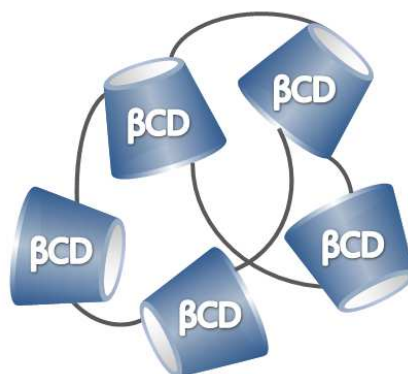
Fine chemical grade cyclodextrins *(Fluorescent tagged polymers)*

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-RL-2009	Rhodamine labeled BCD soluble polymer crosslinked with epichlorohydrin			1-10 g	1970
CY-RL-2009.1	Rhodamine labeled amino-BCD soluble polymer crosslinked with epichlorohydrin			1-10 g	2340
CY-FL-2009	Fluorescein labeled BCD soluble polymer crosslinked with epichlorohydrin			1-10 g	1590
CY-FL-2009.1	Fluorescein labeled amino-BCD soluble polymer crosslinked with epichlorohydrin			1-10 g	2260



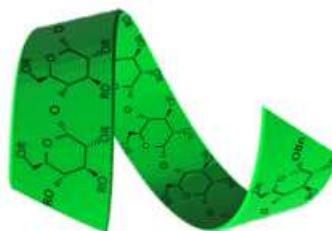
Fine chemical grade cyclodextrins (*Cyclodextrin polymers*)

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-1009	Soluble alpha-cyclodextrin polymer crosslinked with epichlorohydrin	ACDPS		1-24g	17,7
				25-49g	13,6
				50g-	12,26
CY-2009	Soluble beta-cyclodextrin polymer crosslinked with epichlorohydrin	BCDPS		1-24g	15
				25-49g	12,24
				50g-	10,9
CY-3009	Soluble gamma-cyclodextrin polymer crosslinked with epichlorohydrin	GCDPS		1-9g	41
				10-24g	34
				25g-	21,8
CY-2010	Soluble carboxymethyl-beta-cyclodextrin polymer	BCDPSI		1-24g	30
				25-49g	24,88
				50g-	21,2
CY-2109	Soluble (2-Hydroxy-3-N,N,N-trimethylamino)propyl-beta-cyclodextrin polymer	QABCDPS		1-19g	32
				20-49g	25,2
				50g-	20



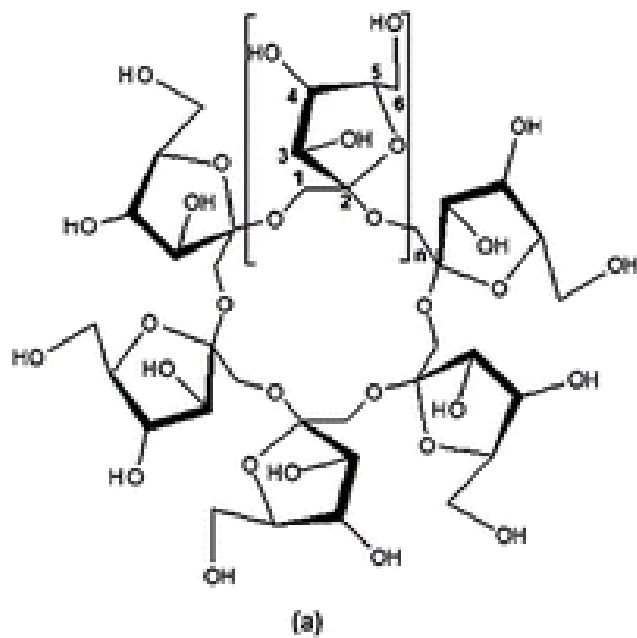
Fine chemical grade cyclodextrins (*Maltooligomers*)

Product code	Product name	Abbreviation	CAS no	Price in EUR/g	
CY-4002	Maltohexaose, anomeric mixture	G6	34620-77-4	1-9g	135
				10g-	109
				25 g-	95
CY-4004	Maltoheptaose, anomeric mixture	G7	34620-78-5	1-9g	135
				10g-	109
				25 g-	95
CY-4006	Maltooctaose, anomeric mixture	G8	6156-84-9	1-9g	135
				10g-	109
				25 g-	95
CY-4001	Peracetyl maltohexaose, anomeric mixture	AcG6		1-9g	34,2
				10-24g	27,3
				25g-	24
CY-4003	Peracetyl maltoheptaose, anomeric mixture	AcG7		1-9g	34,2
				10-24g	27,3
				25g-	24
CY-4005	Peracetyl maltooctaose, anomeric mixture	AcG8		1-9g	34,2
				10-24g	27,3
				25g-	24



Fine chemical grade (*Per-Anhydro CDs*)

Product code	Product name	Abbreviation	CAS no	Price in EUR/g
CY-1203	Per-(3,6-anhydro)-alpha-cyclodextrin			Contact us!
CY-2203	Per-(3,6-anhydro)-beta-cyclodextrin			Contact us!
CY-3203	Per-(3,6-anhydro)-gamma-cyclodextrin			Contact us!

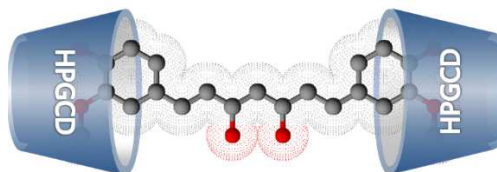


Fine chemical grade cyclodextrins (*CD complexes*)

Product code	Product name	Abbreviation	CAS no	Price in EUR/g
CY-9008	Oleic acid/RAMEB complex			Contact us!
CY-9007	Linoleic acid/RAMEB complex			Contact us!
CY-9020	Lipoic acid/HPBCD complex			Contact us!
CY-9002.0	ChloresteroL/RAMEB complex			Contact us!
CY-9001	Palmitic acid/RAMEB			Contact us!
CY-9005	Menthol/BCD complex			Contact us!
CY-9012	α -Tocopherol/RAMEB			Contact us!
CY-9014	Ergocalciferol /RAMEB			Contact us!
CY-9019	Dexamethasone/HPBCD			Contact us!
CY-9023	Stearic acid/RAMEB complex			Contact us!
CY-9025	Docosahexaenoic acid/RAMEB			Contact us!

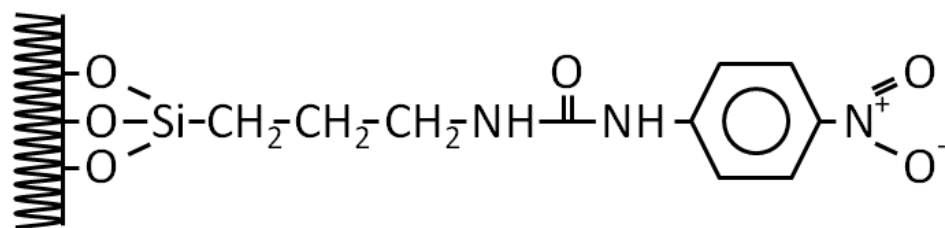
Fine chemical grade cyclodextrins (CD complexes)

Product code	Product name	Abbreviation	CAS no	Price in EUR/g
CY-9027	Myristic acid/RAMEA			Contact us!
CY-9029	Stearic acid/RAMEA complex			Contact us!
CY-9031	Linoleic acid/RAMEA			Contact us!
CY-9033	Eicosapentaenoic acid/RAMEA			Contact us!
CY-9035	Curcumin/HPGCD			Contact us!
CY-9202	Ethanol/ACD			Contact us!
CY-9203	Kapsanthin/RAMEB			Contact us!
CY-9204	Kapsorubin/RAMEB			Contact us!
CY-9205	Lutein/RAMEB			Contact us!
CY-9206	Zeaxanthin/RAMEB			Contact us!



HPLC columns

Product code	Product name	Abbreviation	CAS no	Price in EUR/pcs	
CDS-2504-05	CD-Screen 5 μ 250x4 mm				850
CDS-1504-03	CD-Screen 3 μ 150x4 mm				850
CDS-IEC-1504-03	CD-Screen-IEC HPLC column 3 μ 150x4 mm				850



Special offers

- *Sugammadex related substances*: Cyclolab is deeply involved in the optimization of Sugammadex production including evaluation and optimization of synthetic routes, preparation and marketing of intermediates with proprietary manufacturing routes (see offers above), analysis of samples and development of Sugammadex related impurities. For details, please contact us at info@cyclolab.hu.

