

**NEW!**

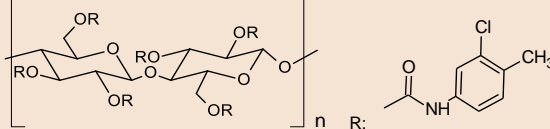
Chiral Separation Column

# CHIRAL ART Cellulose-SZ

## Features

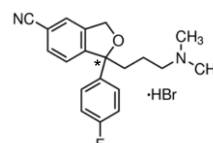
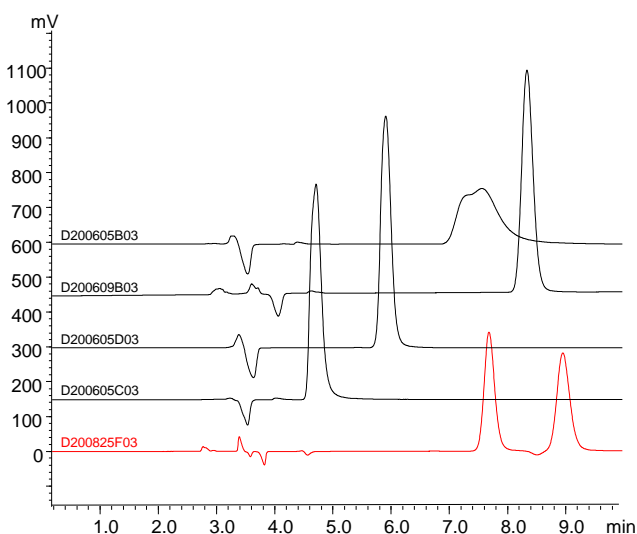
- New chiral selector as an immobilized type
- Wide applications and unique selectivity complementing other chiral selectors
- Compatible with various organic solvents
- High durability over a wide range of pH

### Chiral Selector



Cellulose tris(3-chloro-4-methylphenylcarbamate)

## Unique Selectivity Complementing Other Chiral Selectors



Citalopram hydrobromide

Column	: 5 $\mu$ m, 250 X 4.6 mm I.D.
Eluent	: <i>n</i> -hexane/2-propanol/diethylamine (70/30/0.1)
Flow rate	: 1.0 mL/min
Temperature	: 25°C
Detection	: UV at 230 nm
Injection	: 5 $\mu$ L (1.0 mg/mL)

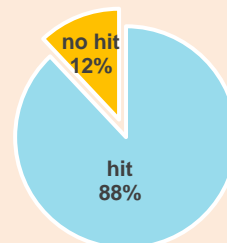
With unique stereoselectivity of CHIRAL ART Cellulose-SZ, it is expected that success rate of chiral separation is improved.

## CHIRAL ART Family Products

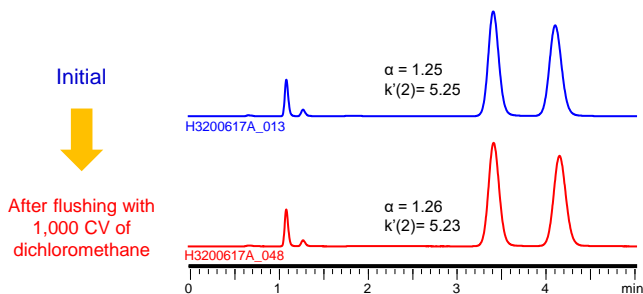
Type	Name	Chiral Selector
Immobilized	CHIRAL ART Amylose-SA	Amylose tris(3,5-dimethylphenylcarbamate)
	CHIRAL ART Cellulose-SB	Cellulose tris(3,5-dimethylphenylcarbamate)
	CHIRAL ART Cellulose-SC	Cellulose tris(3,5-dichlorophenylcarbamate)
	CHIRAL ART Cellulose-SJ	Cellulose tris(4-methylbenzoate)
	<b>NEW</b> CHIRAL ART Cellulose-SZ	Cellulose tris(3-chloro-4-methylphenylcarbamate)
Coated	CHIRAL ART Amylose-C Neo	Amylose tris(3,5-dimethylphenylcarbamate)
	CHIRAL ART Cellulose-C	Cellulose tris(3,5-dimethylphenylcarbamate)

### CHIRAL ART Columns Screening Result

Adding Cellulose-SZ will raise success rate!



## Wide Range of Usable Solvents



**Retention rate of initial column performance**  
(after flushing with 1,000 CV of each solvent at 40 °C)

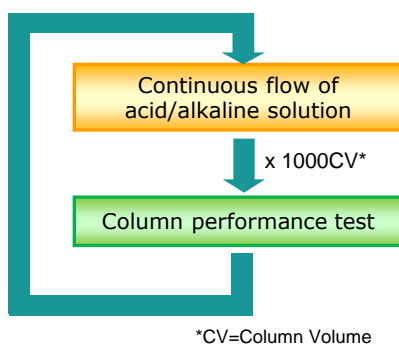
Solvent	$\alpha$	$k'(2)$
Ethyl acetate	100.2%	98.6%
Tetrahydrofuran	98.6%	98.4%
Dichloromethane	100.3%	99.5%

\*CV=Column Volume

Column : 5  $\mu$ m, 50 X 4.6 mm.I.D.  
Eluent : *n*-hexane/2-propanol (95/5)  
Flow rate : 1.0 mL/min  
Temperature : 25°C  
Sample : Benzoin

CHIRAL ART Cellulose-SZ has high resistance to various solvents. The change in column performance after exposure to each solvent was less than 2%.

## Wide Usable pH Range



### Continuous flow of acid/alkaline solution

Column : 5  $\mu$ m, 50 X 4.6 mm.I.D.  
Eluent : Buffer/methanol (90/10)  
Flow rate : 1.0 mL/min

#### [Acidic condition]

Buffer : 0.1% H<sub>3</sub>PO<sub>4</sub> (pH 2)  
Temperature : 40°C

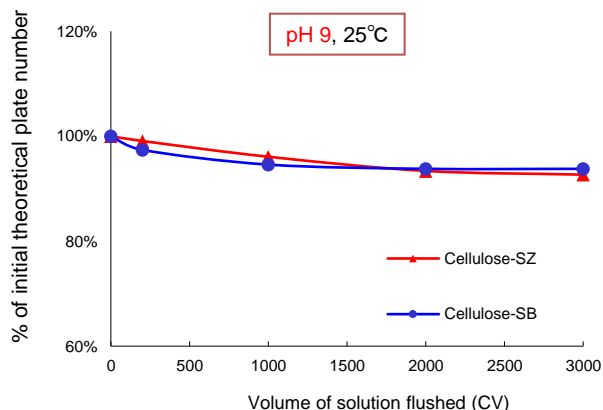
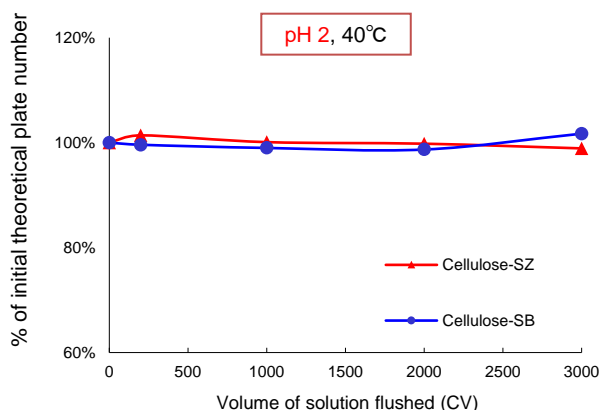
#### [Basic condition]

Buffer : 20 mM NH<sub>4</sub>HCO<sub>3</sub>-DEA\* (pH 9)  
Temperature : 25°C

\*DEA=diethylamine

### Column performance test

Column : 5  $\mu$ m, 50 X 4.6 mm.I.D.  
Eluent : acetonitrile/water (45/55)  
for Cellulose-SZ  
acetonitrile/water (30/70)  
for Cellulose-SB  
Flow rate : 1.0 mL/min  
Temperature : 25°C  
Detection : UV at 254 nm  
Sample : *trans*-Stilbene oxide  
for Cellulose-SZ  
Benzoin for Cellulose-SB



CHIRAL ART Cellulose-SZ has excellent chemical durability and can be used across a wide range of pH. Cellulose-SZ offers stable and consistent performance in reversed phase mode.

### Worldwide Availability

YMC America, Inc.  
www.ymcamerica.com

YMC Europe GmbH  
www.ymc.de

YMC Switzerland LLC  
www.ymc-schweiz.ch

YMC Shanghai Rep. Office  
www.ymcchina.com

YMC India Pvt. Ltd.  
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