



CELLACHROM™

THE MOST INNOVATIVE KOREAN HPLC COLUMN BRAND

- CellaChrom is the Chromatography division of CellionBioMed Inc. -

CELLACHROM™

- *CellaChrom is the Global Brand in Chromatography.*
- *We have 25 yrs experience on chromatography.*

■ Technical history

Our Chromatography technology started from RStech Corporation,
established by Dr. S.J. Kim in 2000.

- 2001: First commercialization for general HPLC columns
Launched 'OptimaPak' – 1st generation brand of HPLC column
- 2002 : Launched 'ChiroSil' – Crown-ether based Chiral column
- 2008 : Launched 'Hector' – 2nd generation brand of HPLC column

Founded Cellionbiomed Inc focusing on Chiral New drugs and Chiral Chromatography

- 2022 : Launched '**CellaChrom®**' – 3rd generation brand of HPLC column
- 2023 : Launched '**CrownSil®**' – Advanced Crown-ether based chiral column
- 2024 : Launched **polysaccharide** base chiral columns
'**CelluloSil®**' – Cellulose based chiral columns.
'**AmyloSil®**' – Amylose based chiral columns.

We are specialist in chiral separation technology and received prestigious award by Korean government

Jang-Young Sil award



The Minister of Commerce,
Industry and Energy award



The Ministry of Health
and Welfare award



Korean Chemical Society
award for Achievement



Features of CellaChrom

CELLACHROM™

1

- Produced by our innovative technology
- More than equivalent quality than existed products



New Global Brand of Chromatography!

- Premium quality with our proprietary technology



2



3

- High quality assurance as well as excellent cost-effectiveness



From analytical to Prep

【Ranking of CellaChrom in Technology】

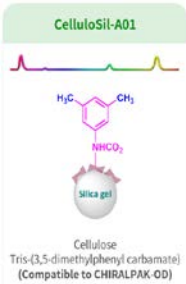
Ranking In Technology	Company Name	Countries	No. of Chiral Columns (No. of Series)
1	Daicel	Japan	39
2	Regis Technologies	U.S.A.	24*
3	CellionBiomed	South Korea	14
4	Phenomenex	U.S.A	8
5	YMC	Japan	7
6	Thermo Scientific	U.S.A	3
7	KromaSil	Sweden	2

* The 4 products are supplied by OEM.

Enhances your accuracy and professionalism!

Brand Name	Product Name	Type	CSP	Compatibility
CelluloSil™ 	CelluloSil-A01	Coated	<i>Cellulose tris-(3,5-dimethylphenylcarbamate)</i>	CHIRALCEL OD
	CelluloSil-A02	Coated	<i>Cellulose tris-(3-chloro-4-methylphenylcarbamate)</i>	CHIRALCEL OZ
	CelluloSil-B01	Immobilized	<i>Cellulose tris-(3,5-dimethylphenylcarbamate)</i>	CHIRALPAK IB
	CelluloSil-B02	Immobilized	<i>Cellulose tris-(3-chloro-4-methylphenylcarbamate)</i>	CHIRALPAK IM
AmyloSil™ 	AmyloSil-A01	Coated	<i>Amylose tris-(3,5-dimethylphenylcarbamate)</i>	CHIRALPAK AD
	AmyloSil-A02	Coated	<i>Amylose tris-(3-chloro-4-methylphenylcarbamate)</i>	CHIRALPAK AZ
	AmyloSil-B01	Immobilized	<i>Amylose tris-(3,5-dimethylphenylcarbamate)</i>	CHIRALPAK IA
	AmyloSil-B02	Immobilized	<i>Amylose tris-(3-chloro-4-methylphenylcarbamate)</i>	CHIRALPAK IF
CrownSil™/CrownSil ME™ 	CrownSil-R(+) CrownSil-S(-)	Immobilized	<i>(+),(-)-(18-crown-6)-acid (on APS)</i> - Specialized for the separation of amino acids and amines.	Supplied by only CellaChrom
	CrownSil-R(+)-ME CrownSil-S(-)-ME		<i>(+),(-)-(18-crown-6)-acid (on N-Methyl APS)</i> - Specialized for the separation of amine derivatives. *Usable for both reverse and normal phase.	
CellaChrom™ 	CellaChrom-C18	Achiral	<i>Wide versatile reversed column for hydrophobic and polar substances</i>	Reverse phase
	CellaChrom-C18A		<i>High suitability for the separation of hydrophilic substances.</i>	Reverse phase
	CellaChrom-C8		<i>Suitable for weakly polar substances.</i>	Reverse phase
	CellaChrom-C4		<i>Suitable for hydrophobic and polar substances.</i>	Reverse phase
	CellaChrom-APS		<i>Suitable for moderate polar substances.</i>	Reverse phase
	CellaChrom-Sil		<i>Suitable for less polar substances.</i>	Normal phase

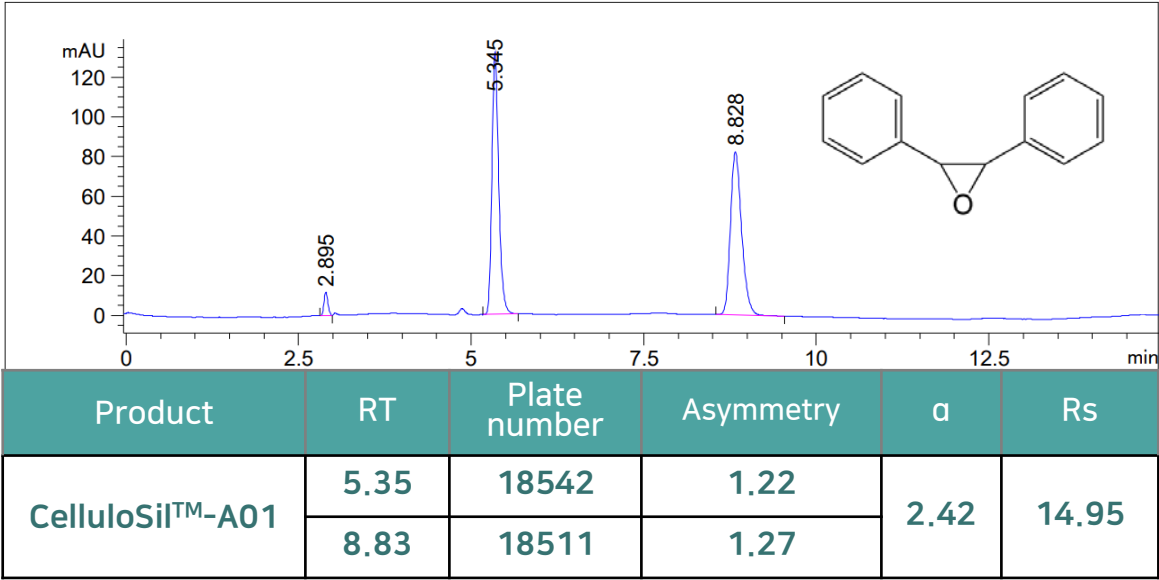
Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALCEL OD



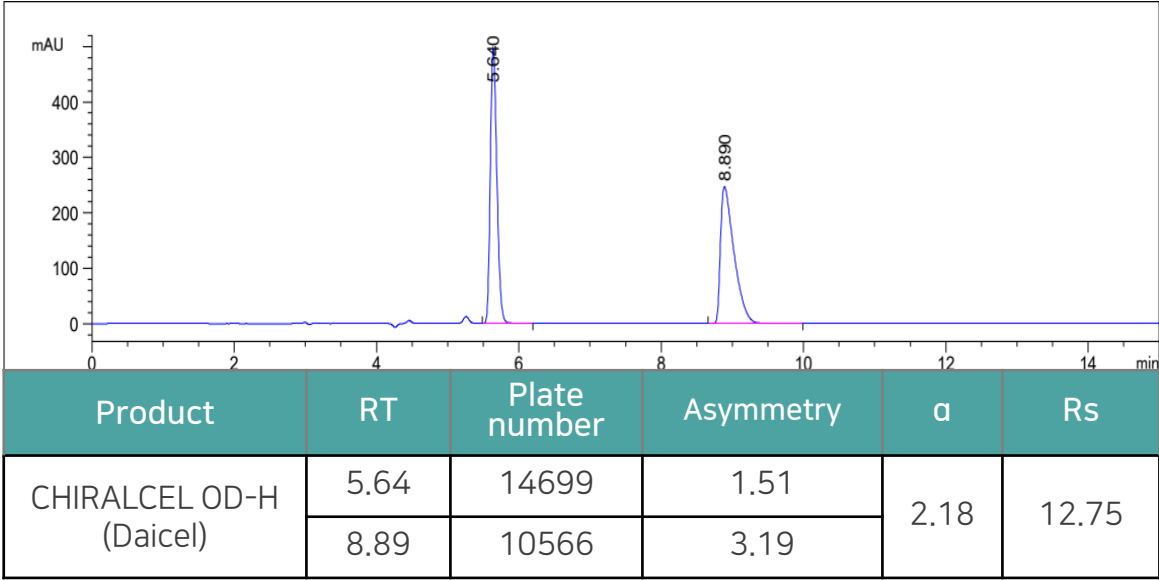
CellaChrom

trans-stilbene oxide(TSO)

Daicel

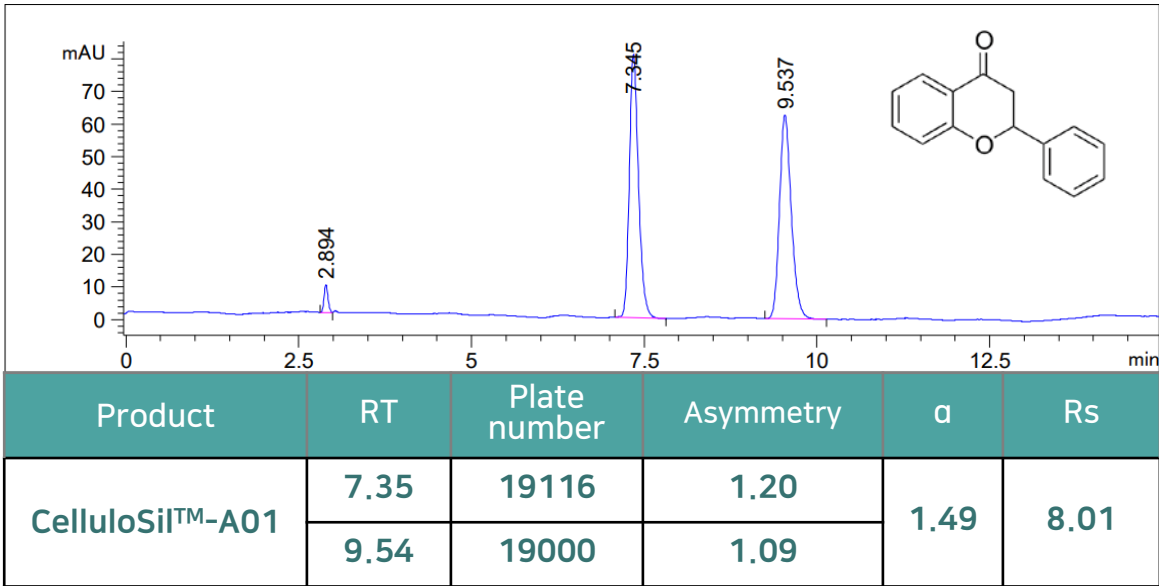


*Hex : IPA = 9:1

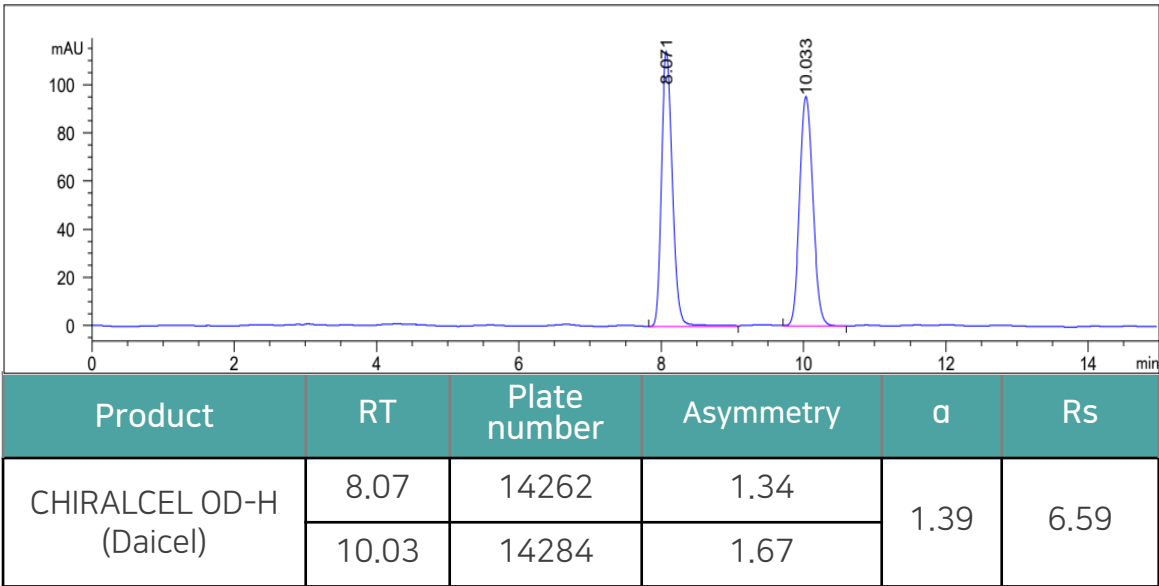


*Hex : IPA = 9:1

Flavanone



*Hex : IPA = 9:1

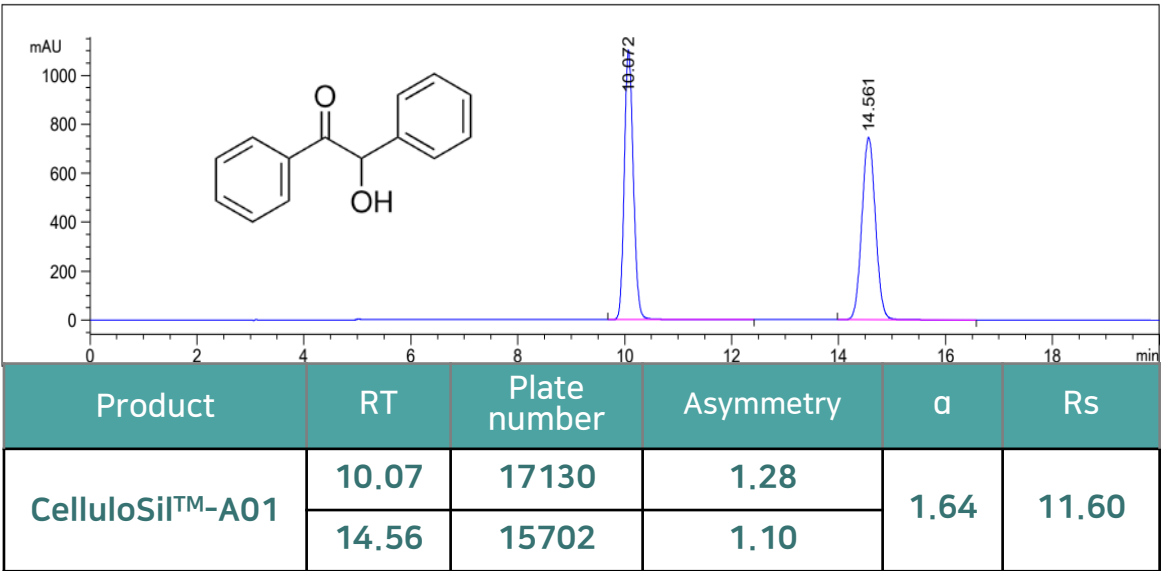


*Hex : IPA = 9:1

It exhibits superior quality than the Daicel's, in terms of separation ability, theoretical plate numbers, and symmetries.

Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALCEL OD

CellaChrom

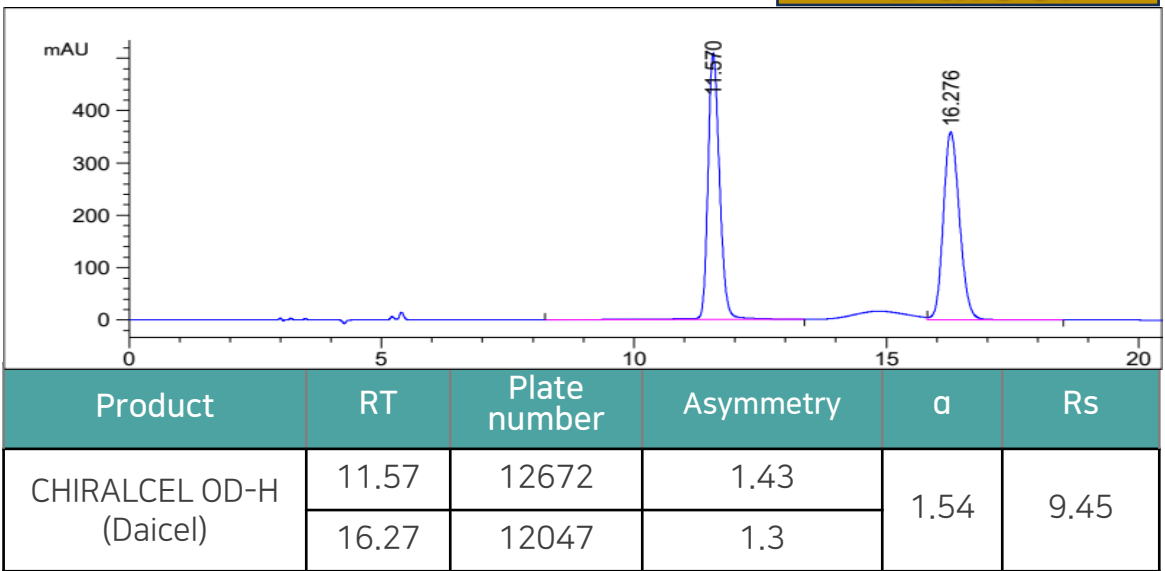


*Hex : IPA = 9 : 1

Benzoin

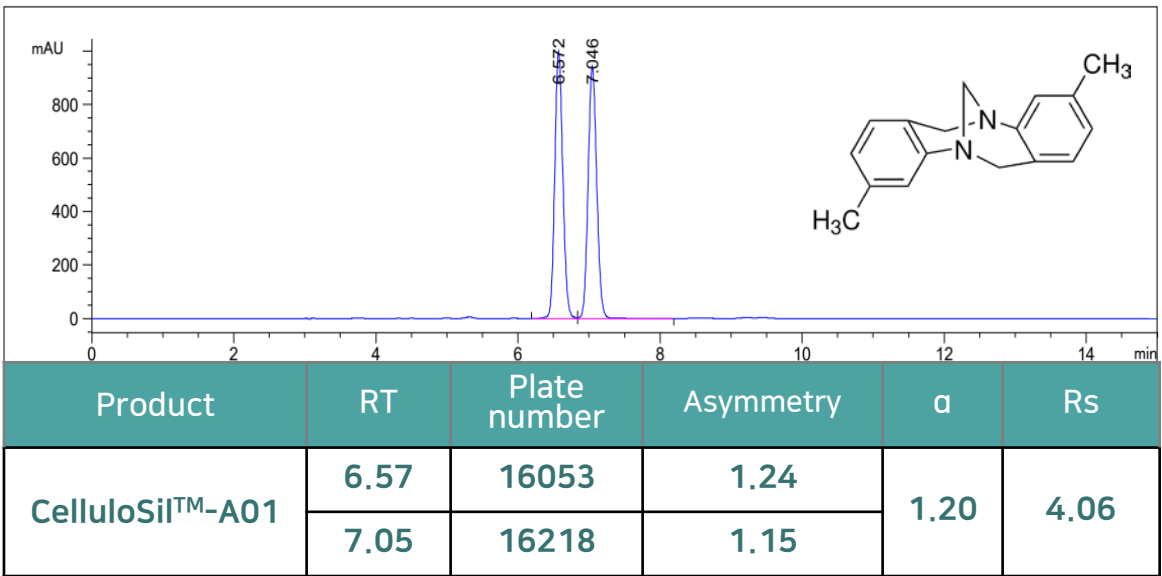
P: >
A: >
 α : >

Daicel



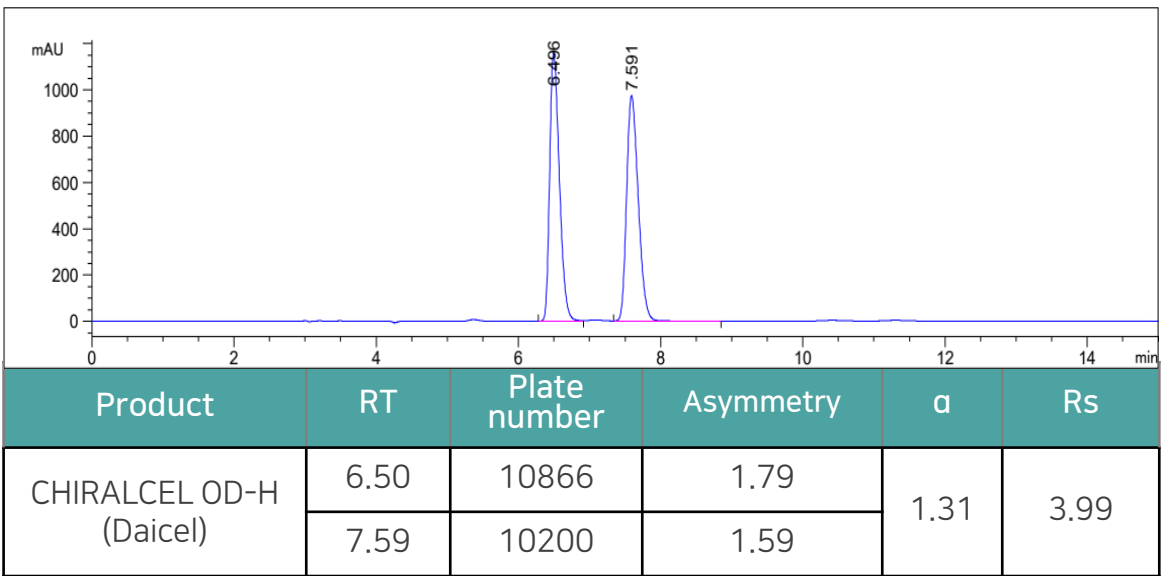
*Hex : IPA = 9 : 1

Troger's Base



*Hex : IPA = 9 : 1

P: >
A: >
 α : $\leq$



*Hex : IPA = 9 : 1

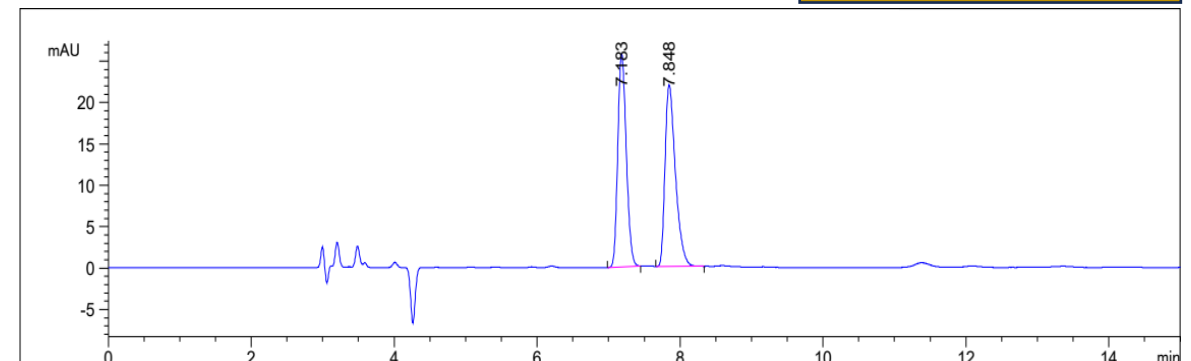
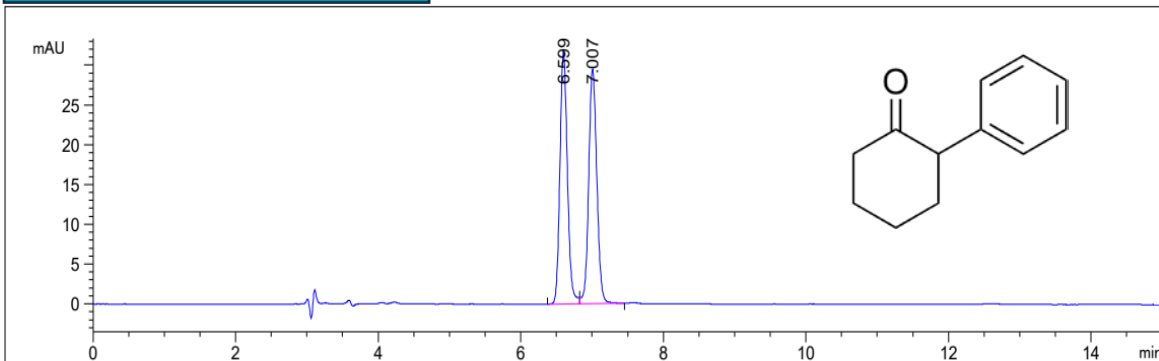
It exhibits superior quality than the Daicel's, in terms of separation ability, theoretical plate numbers, and symmetries.

Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALCEL OD

CellaChrom

2-Phenylcyclohexanone (PCH)

Daicel



Product	RT	Plate number	Asymmetry	α	R_s
CelluloSil™-A01	6.60	19363	1.27	1.11	2.08
	7.01	18673	1.15		

Product	RT	Plate number	Asymmetry	A	R_s
CHIRALCEL OD-H (Daicel)	7.18	17253	1.41	1.16	2.77
	7.85	14442	1.98		

*Hex : IPA = 9 : 1

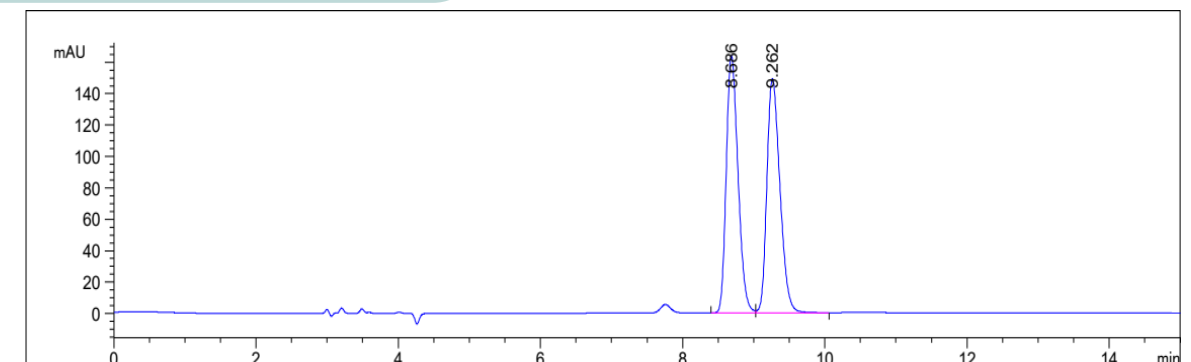
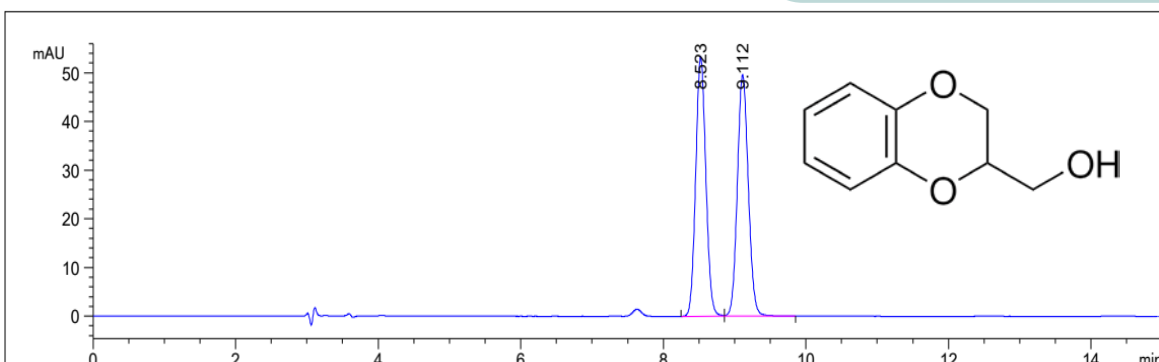
*Hex : IPA = 9 : 1

P: >

A: >

α : $\leq$

2-Hydroxymethyl-1,4-benzodioxane (HMBD)



Product	RT	Plate number	Asymmetry	α	R_s
CelluloSil™-A01	8.52	17068	1.17	1.11	2.19
	9.11	16861	1.14		

Product	RT	Plate number	Asymmetry	α	R_s
CHIRALCEL OD-H (Daicel)	8.69	13132	1.48	1.10	1.80
	9.26	12171	1.63		

*Hex : IPA = 9 : 1

*Hex : IPA = 9 : 1

P: >

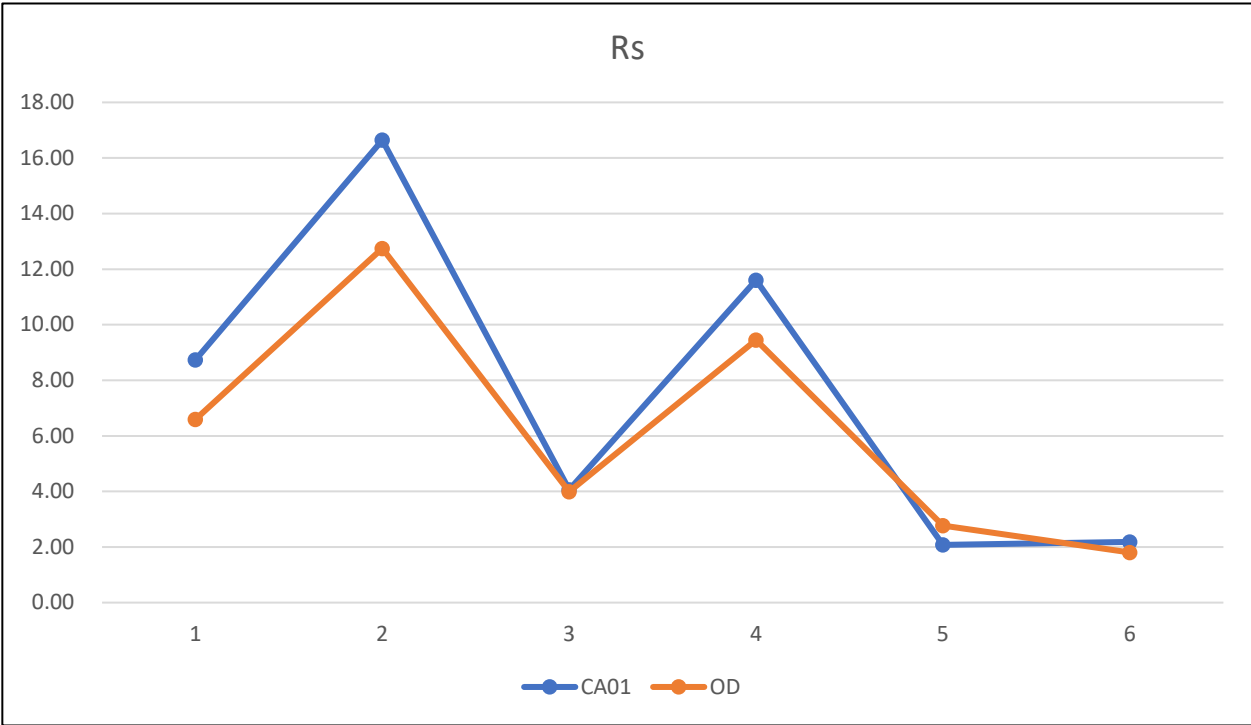
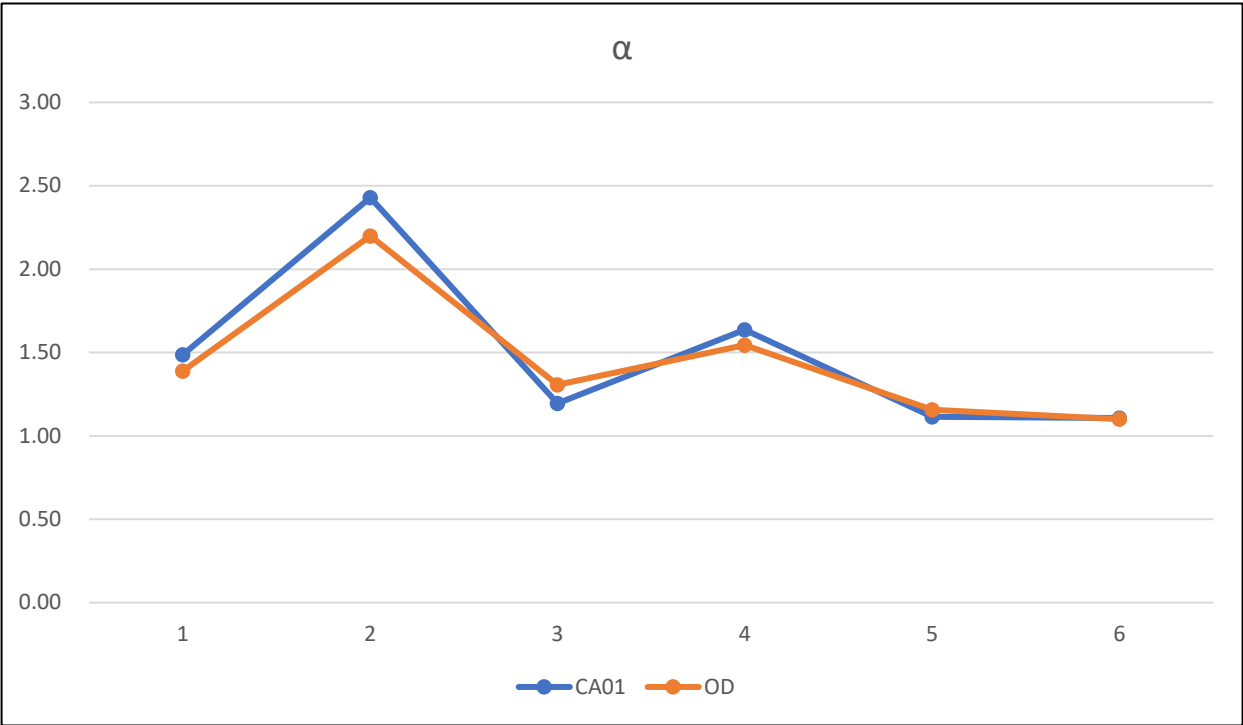
A: >

α : $\approx$

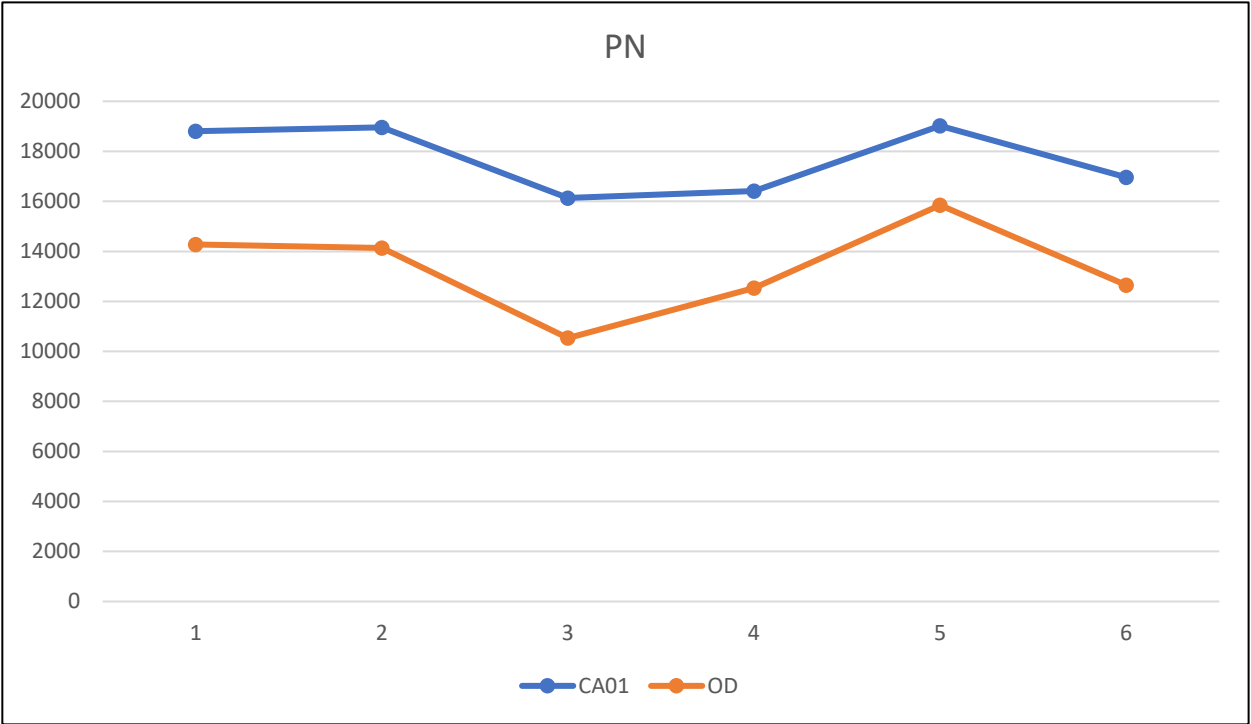
Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALCEL OD

α – Separation factor
Rs – Resolution
PN – Plate number

— CellaChrom
— Daicel



No.	Analytes
1	<i>trans</i> -stilbene oxide (TSO)
2	Flavanone
3	Benzoin
4	Troger's Base
5	2-Phenylcyclohexanone (PCH)
6	2-Hydroxymethyl-1,4-benzodioxane (HMBD)

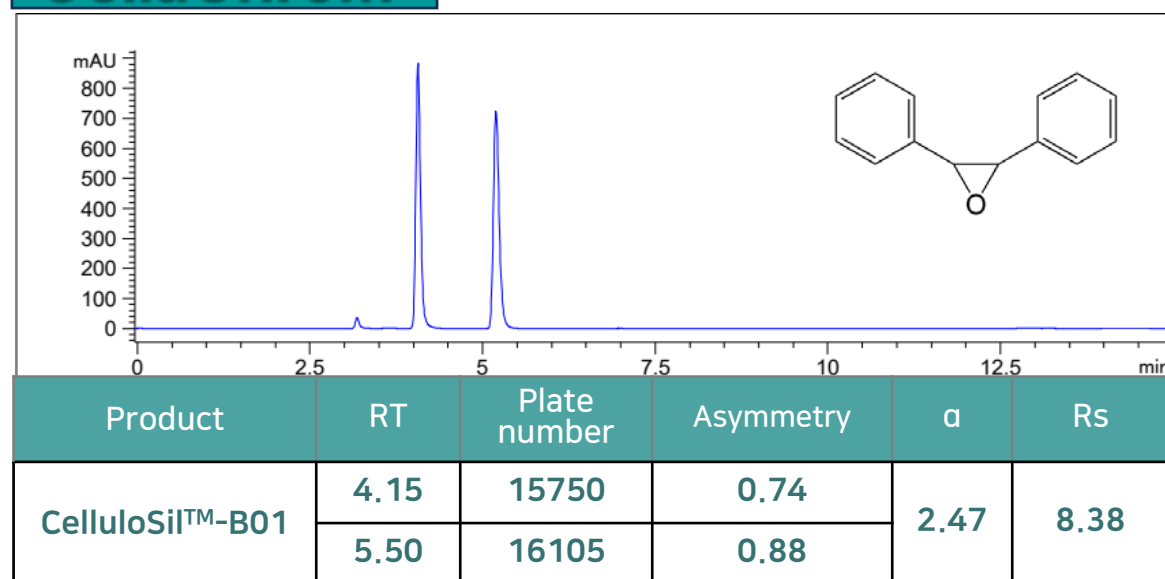


Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALPAK IB

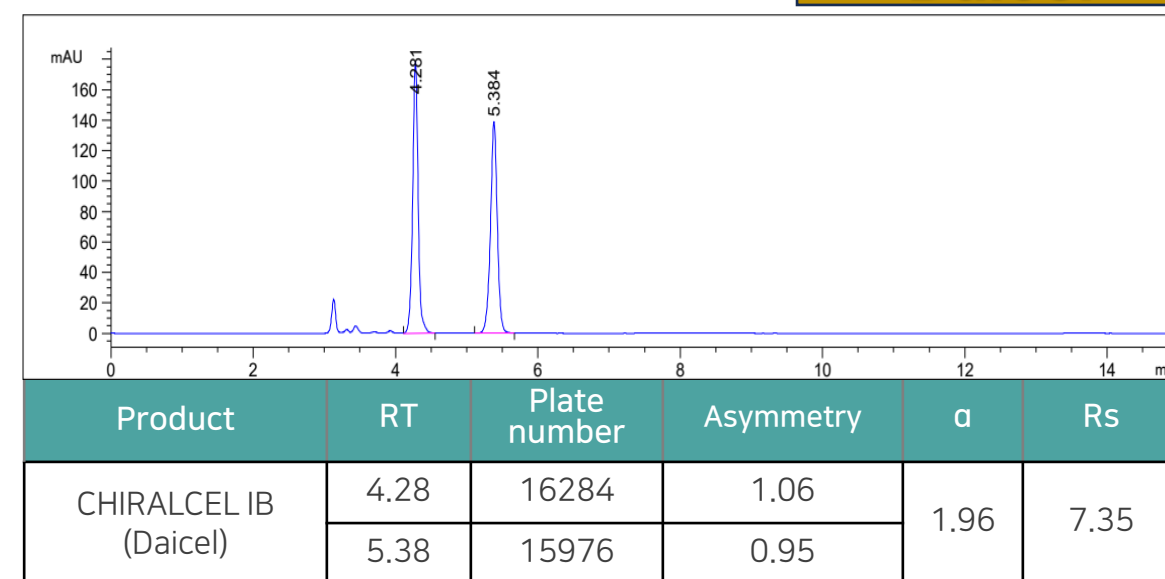
CellaChrom

trans-stilbene oxide (TSO)

Daicel



*Hex : IPA = 9 : 1



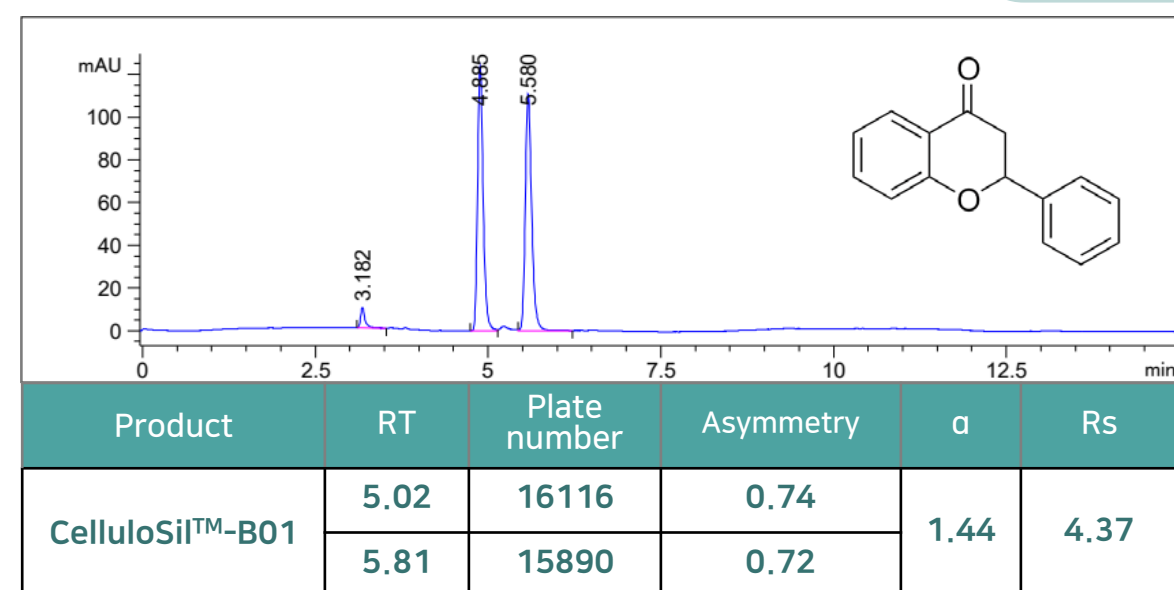
*Hex : IPA = 9 : 1

P: >

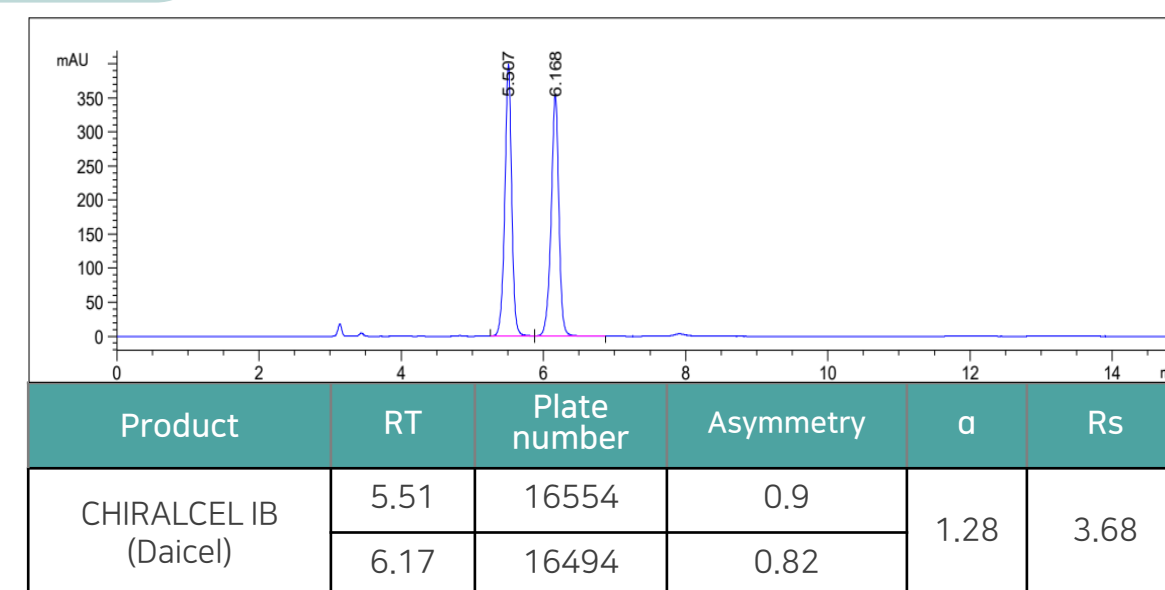
A: ≤

α : >

Flavanone



*Hex : IPA = 9 : 1



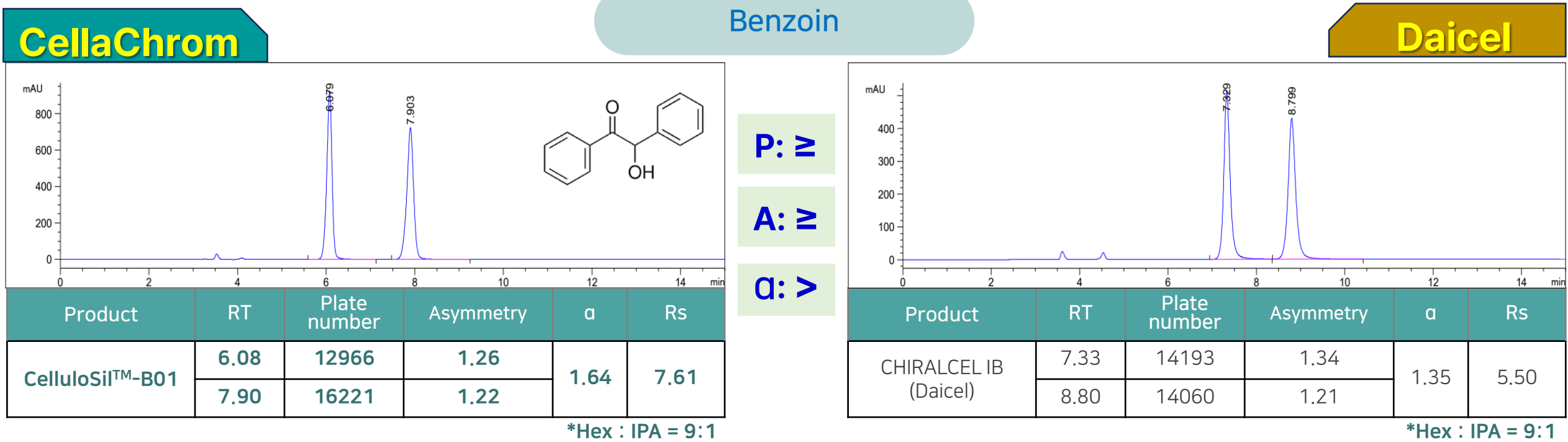
*Hex : IPA = 9 : 1

P: ≈

A: ≤

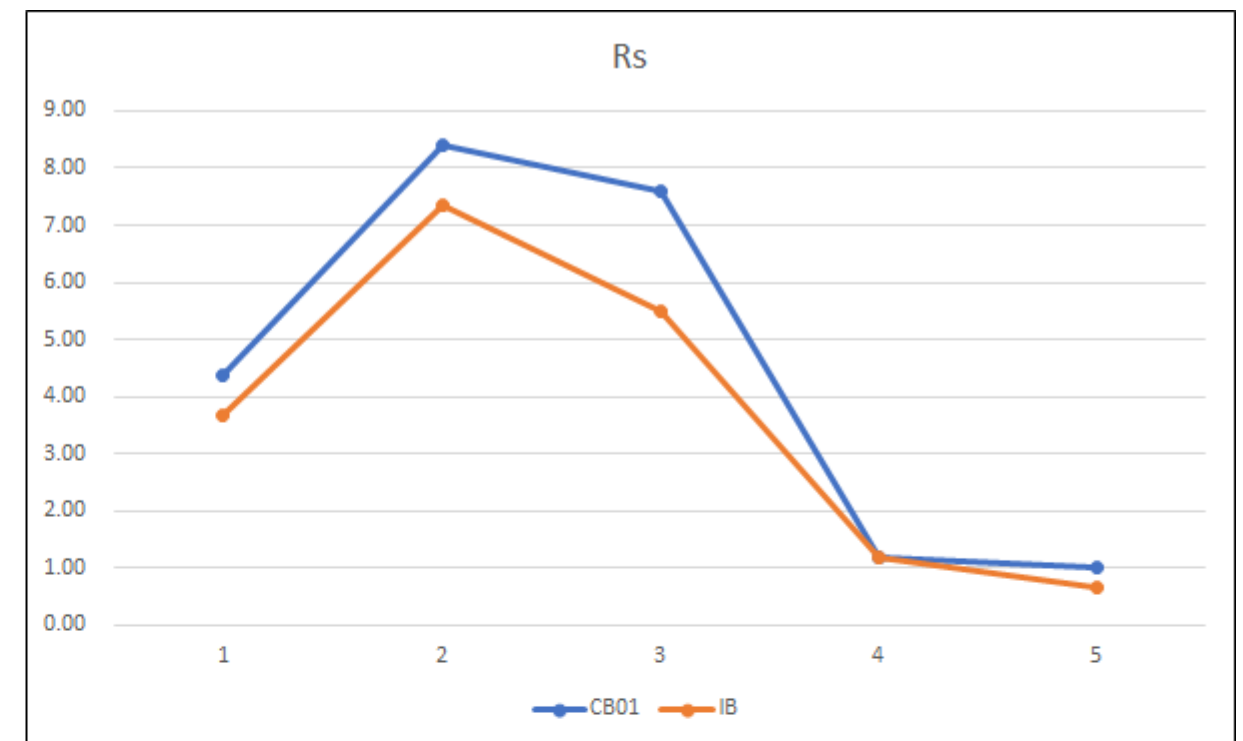
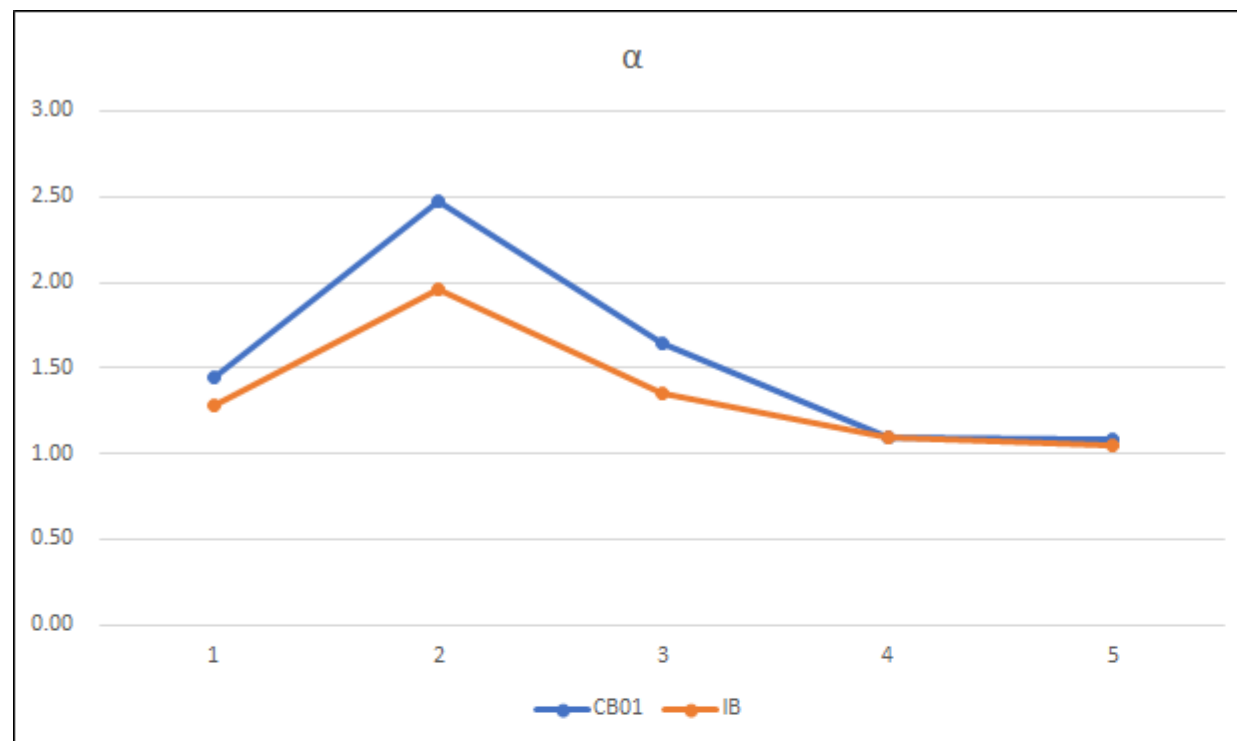
α : >

Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALPAK IB

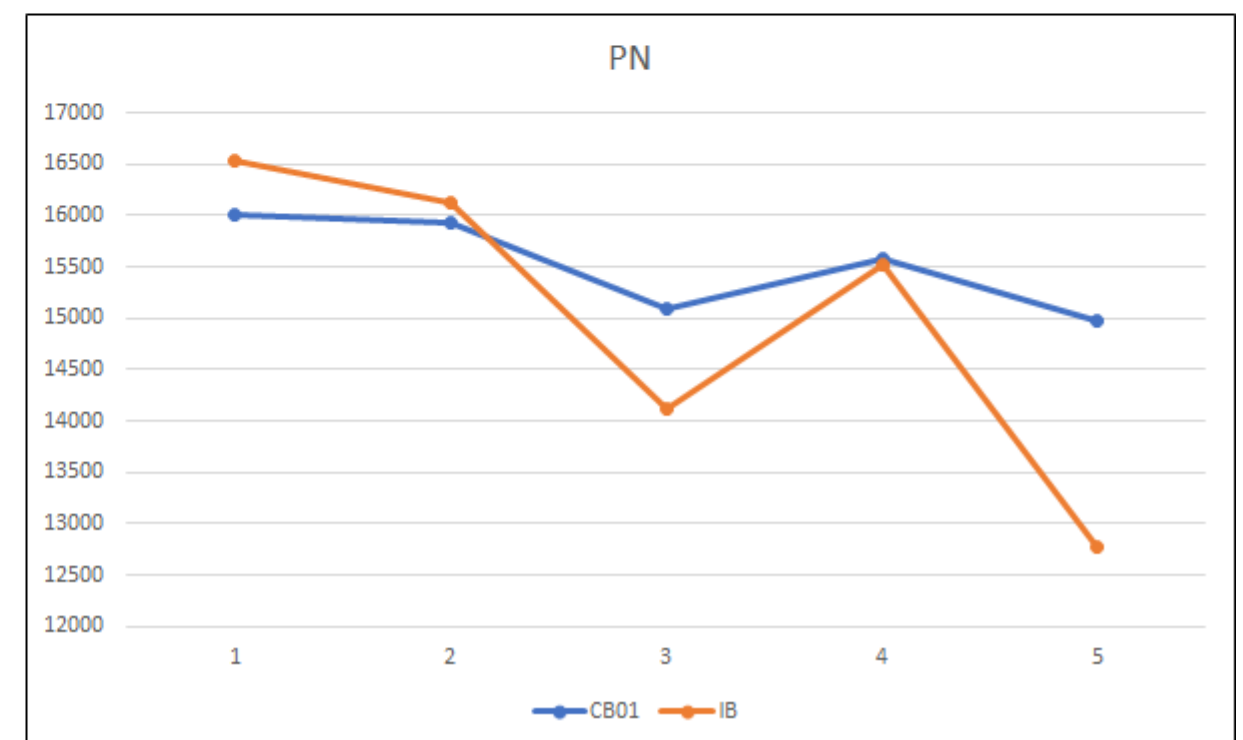


Tris-(3,5-dimethylphenylcarbamate)-cellulose ; compatible with CHIRALPAK IB

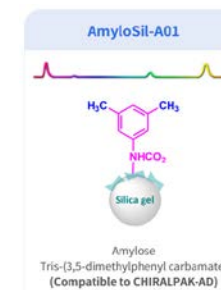
— CellaChrom
— Daicel



No.	Analytes
1	<i>trans</i> -stilbene oxide(TSO)
2	Flavanone
3	Benzoin
4	2-Phenylcyclohexanone(PCH)
5	2-Hydroxymethyl-1,4-benzodioxane(HMBD)



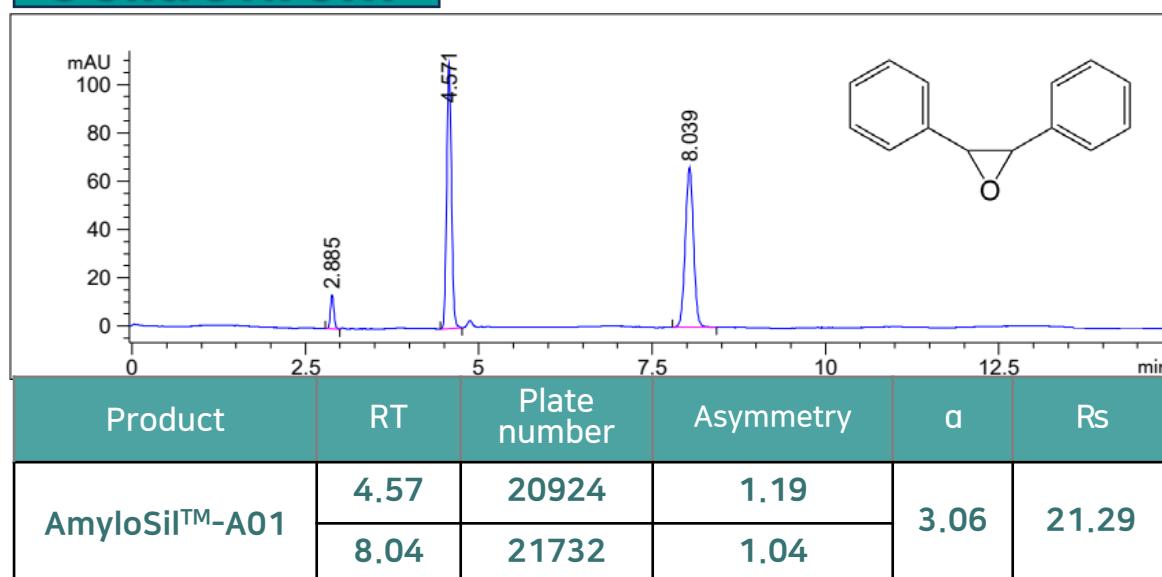
Tris-(3,5-dimethylphenyl)-amylose ; compatible with CHIRALCEL-AD-H



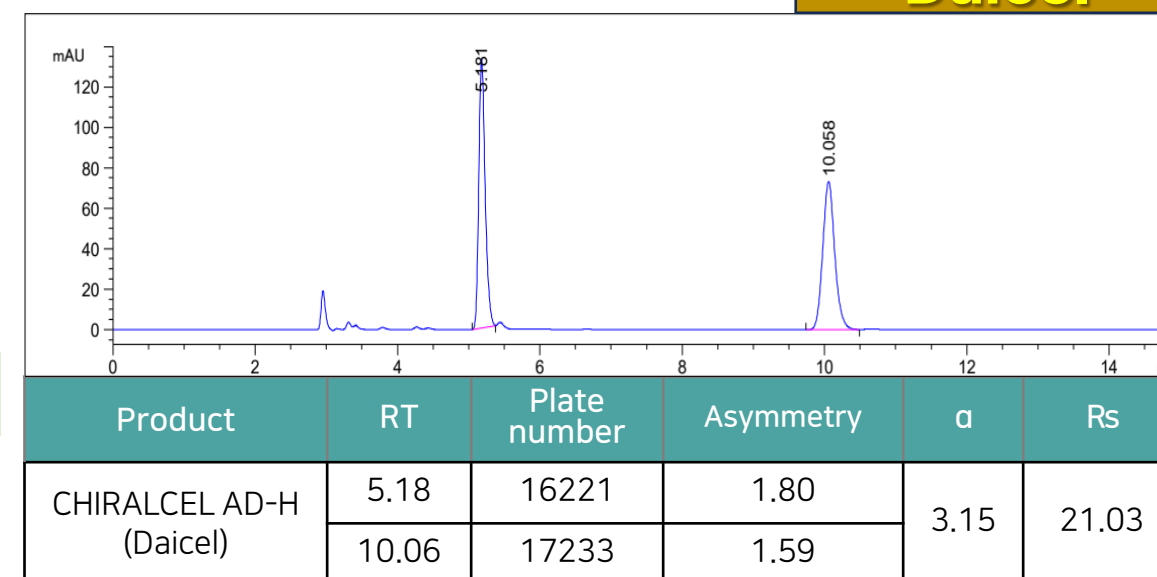
CellaChrom

trans-stilbene oxide (TSO)

Daicel

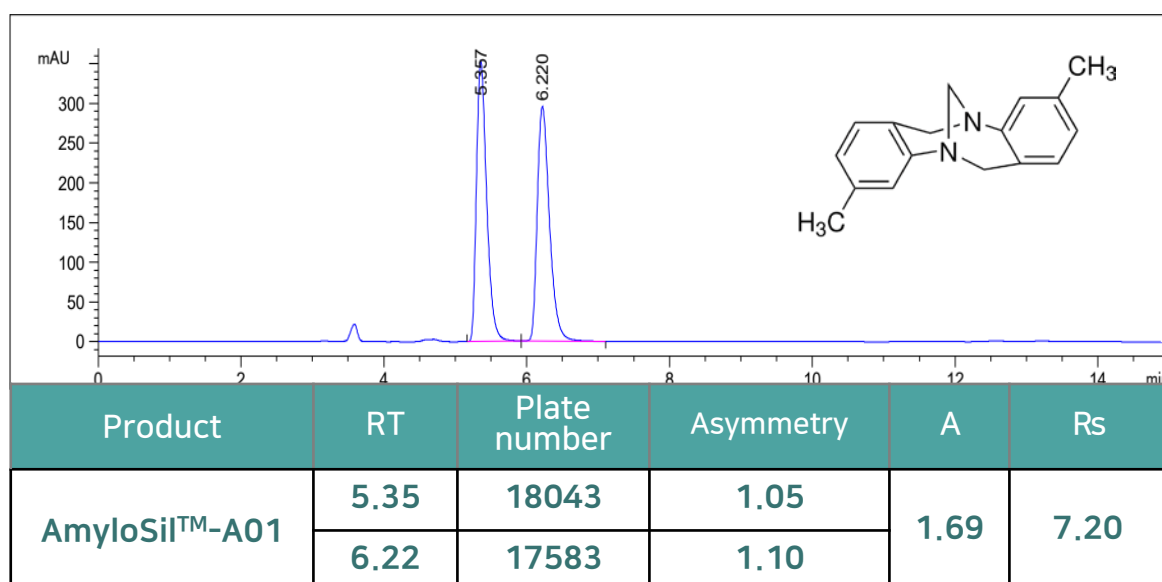


*Hex : IPA = 9 : 1

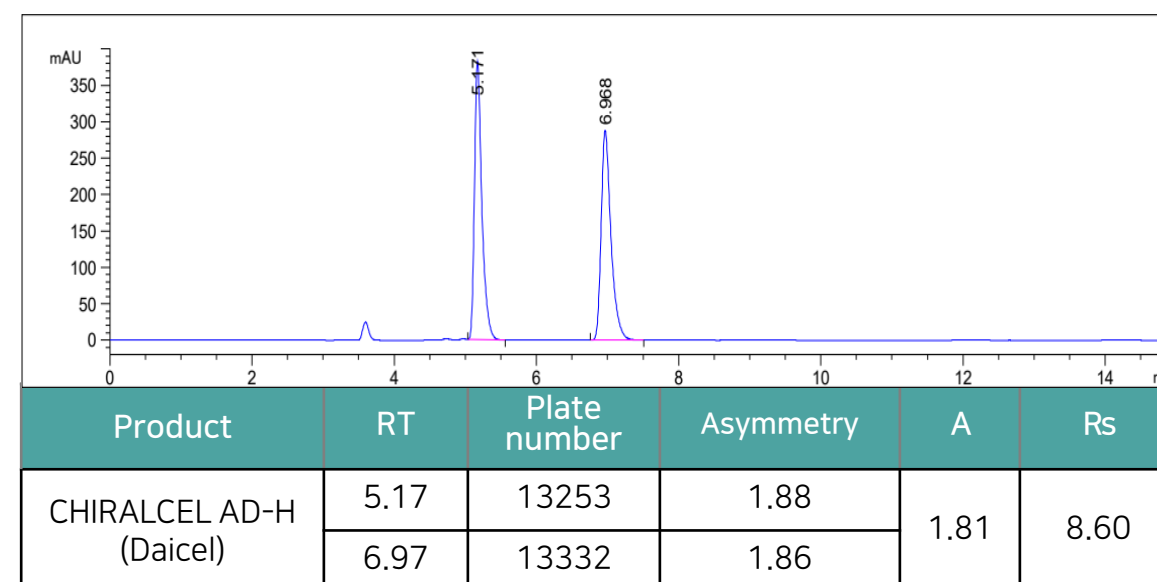


*Hex : IPA = 9 : 1

Troger's Base



*Hex : IPA = 9 : 1



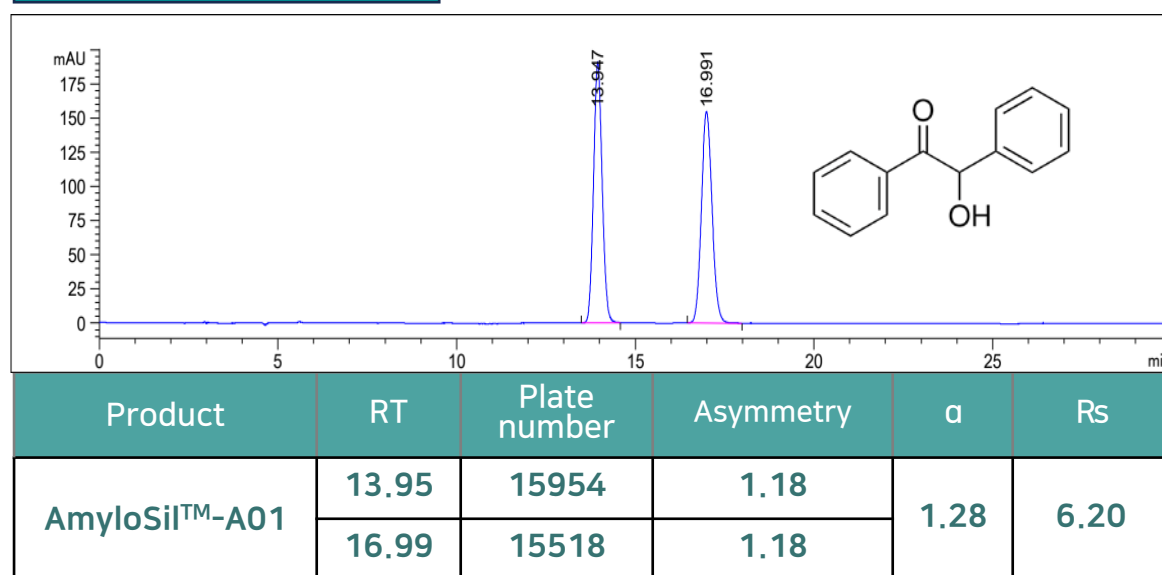
*Hex : IPA = 9 : 1

Tris-(3,5-dimethylphenyl)-amylose ; compatible with CHIRALCEL-AD-H

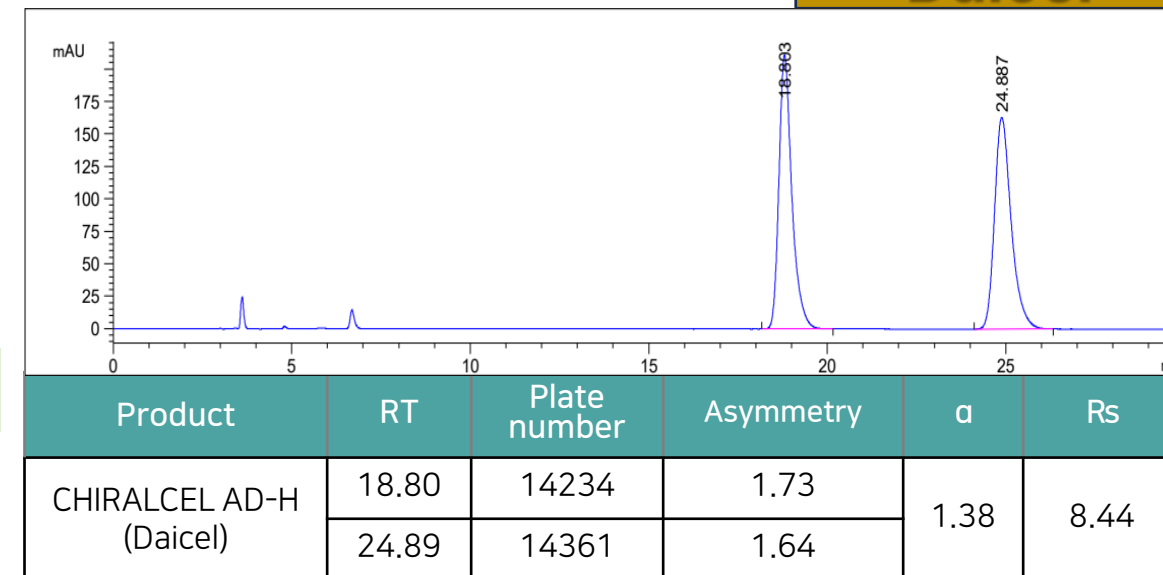
CellaChrom

Benzoin

Daicel

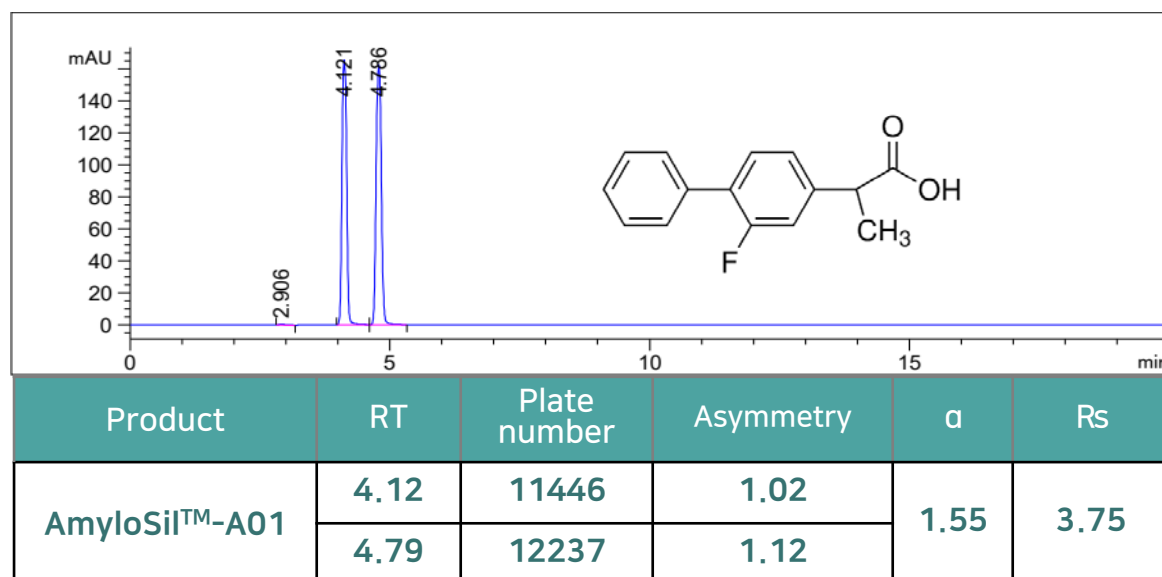


*Hex : IPA = 9 : 1

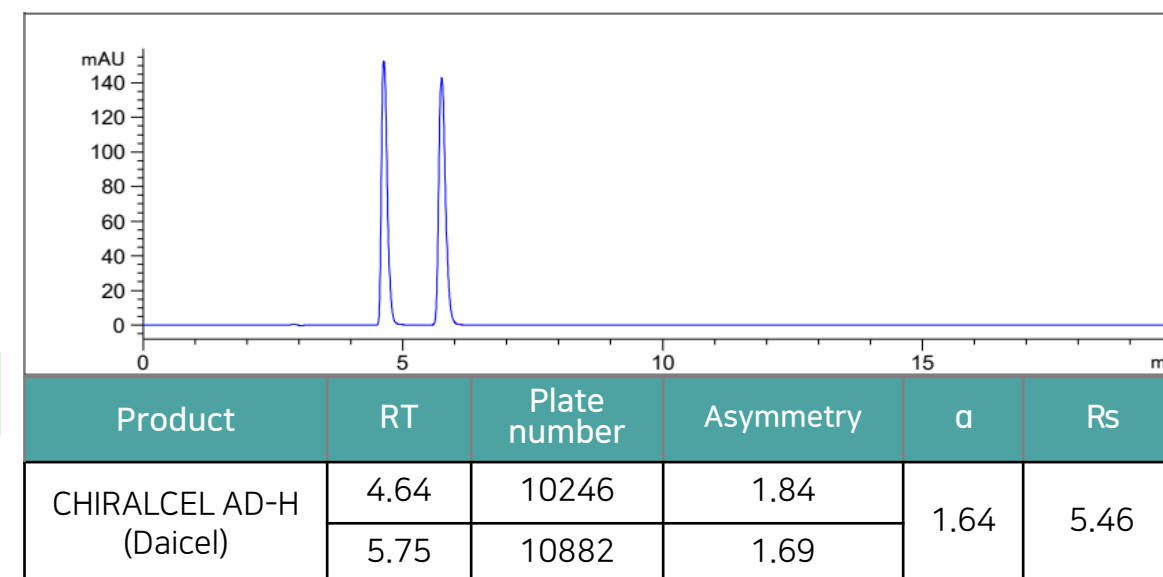


*Hex : IPA = 9 : 1

Flurbiprofen



*Hex : IPA : TFA = 80:20:0.1



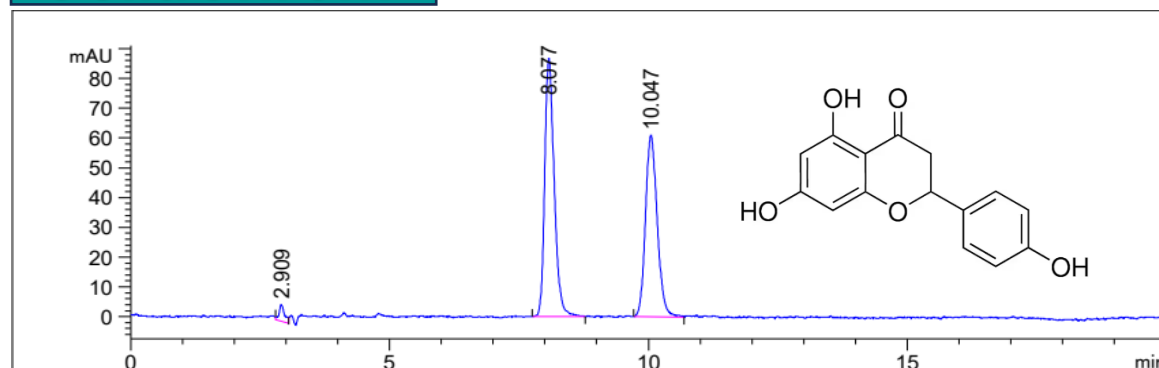
*Hex : IPA : TFA = 80:20:0.1

Tris-(3,5-dimethylphenyl)-amylose ; compatible with CHIRALCEL-AD-H

CellaChrom

Naringenin

Daicel



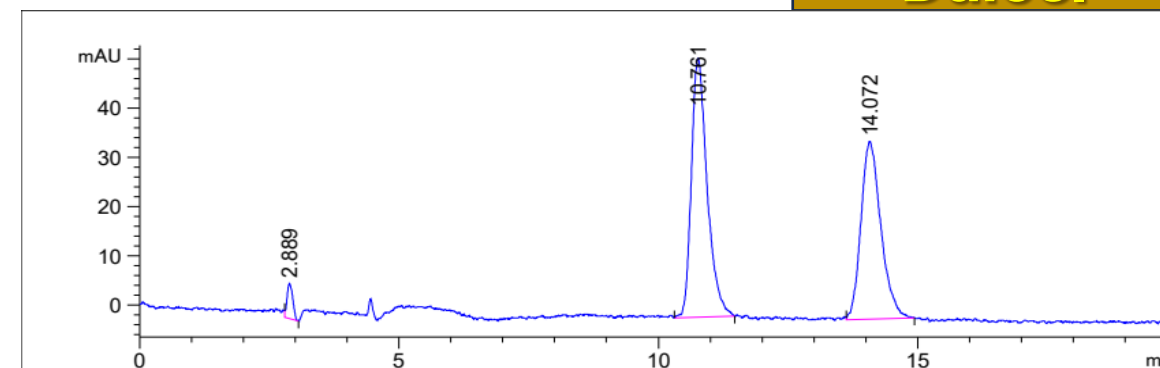
Product	RT	Plate number	Asymmetry	α	R_s
AmyloSil™-A01	8.08	9763	1.52	1.38	5.38
	10.05	9647	1.34		

*Hex : IPA : TFA = 80:20:0.1

P: >

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α : <



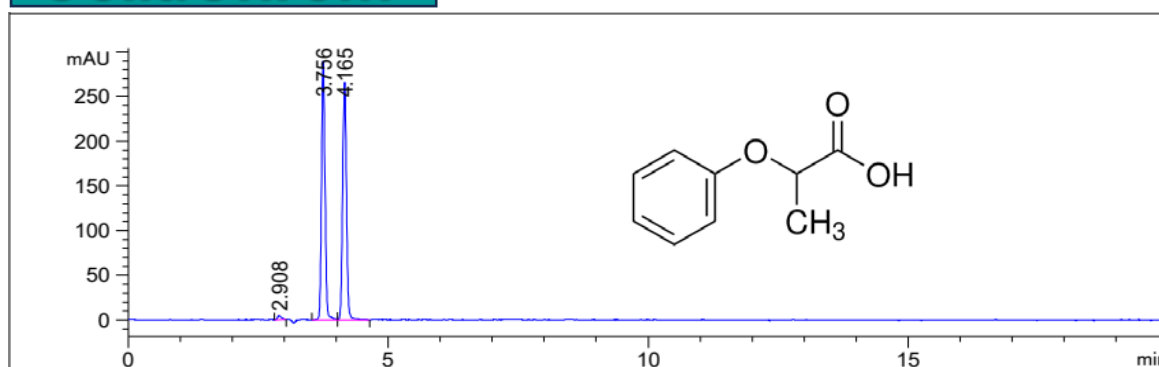
Product	RT	Plate number	Asymmetry	α	R_s
CHIRALCEL AD-H (Daicel)	10.76	6533	1.80	1.42	5.50
	14.07	7100	1.57		

*Hex : IPA : TFA = 80:20:0.1

CellaChrom

2-Phenoxypropionic acid (PPA)

Daicel



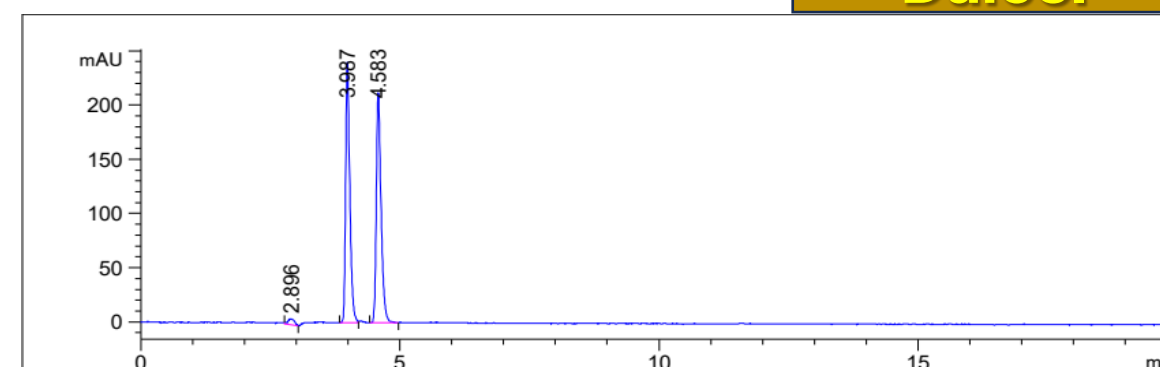
Product	RT	Plate number	Asymmetry	α	R_s
AmyloSil™-A01	3.76	15243	1.09	1.48	3.20
	4.17	15720	1.16		

*Hex : IPA : TFA = 80:20:0.1

P: >

A: >

α : <

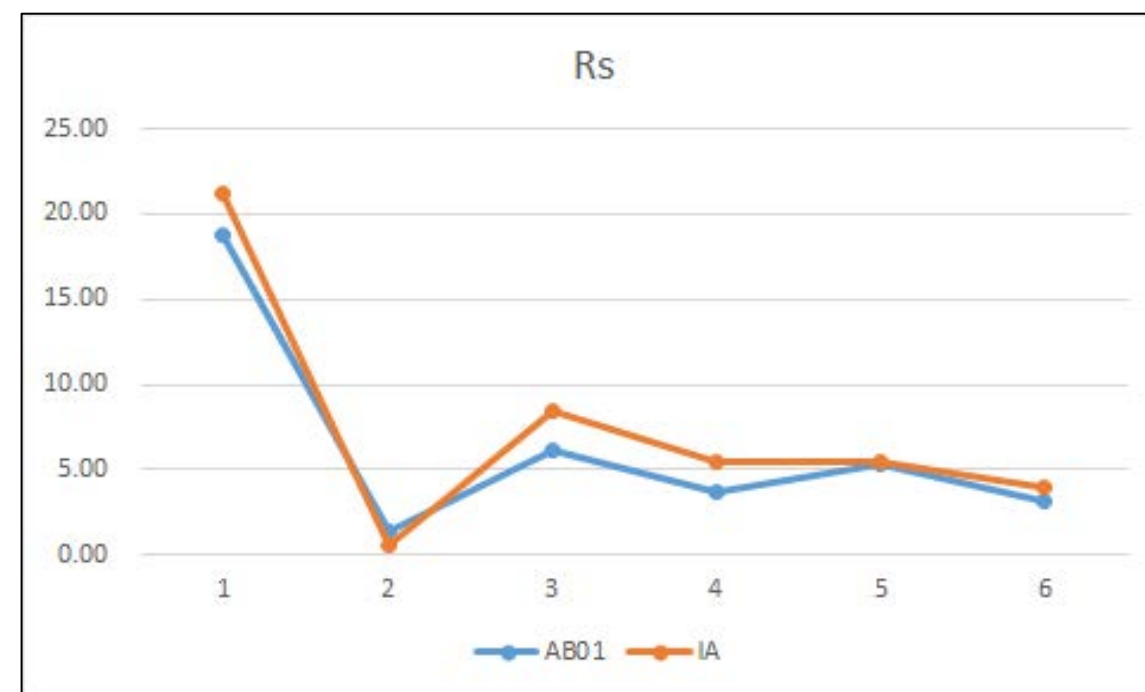
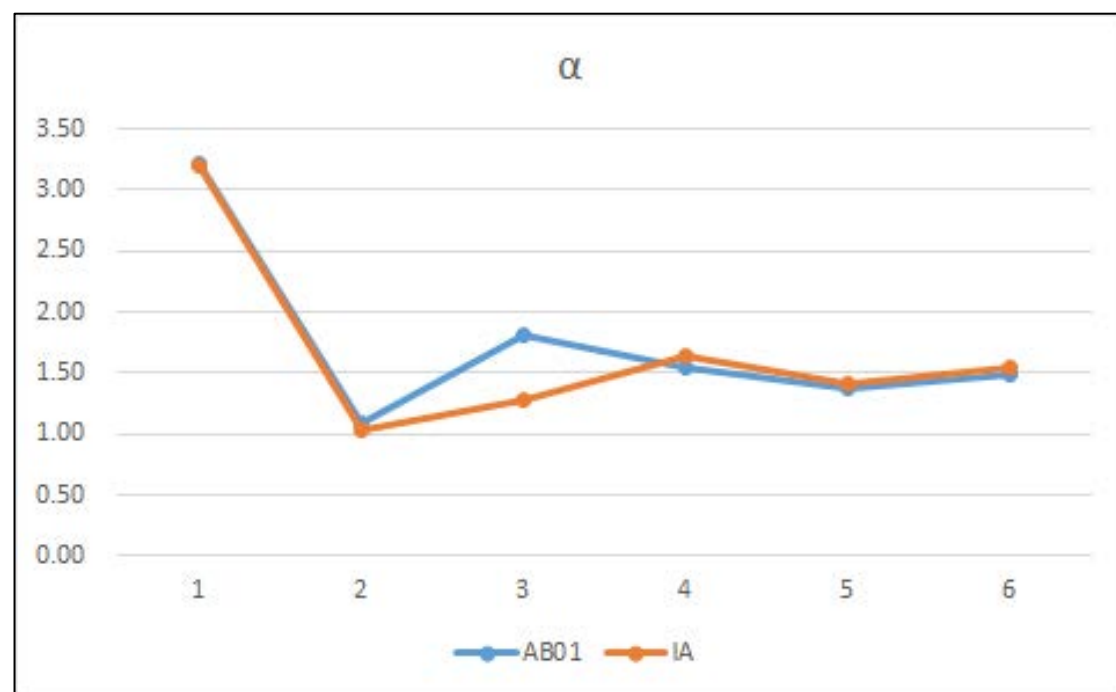


Product	RT	Plate number	Asymmetry	α	R_s
CHIRALCEL AD-H (Daicel)	3.99	12489	1.82	1.55	3.93
	4.58	12660	1.73		

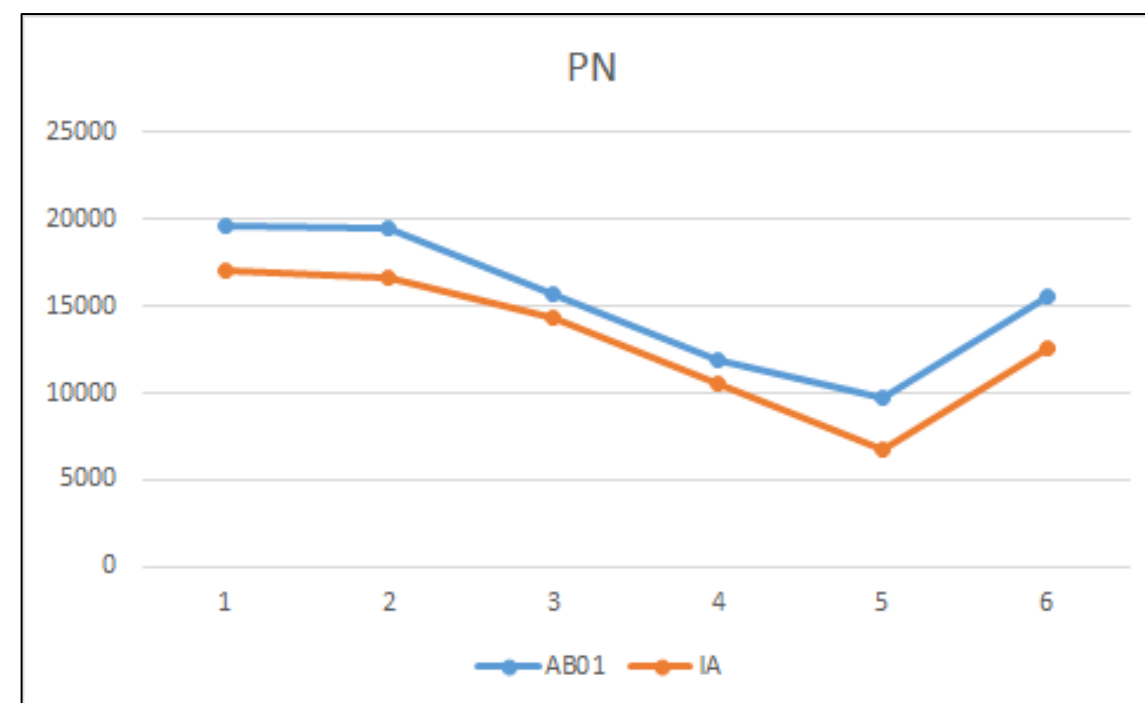
*Hex : IPA : TFA = 80:20:0.1

Tris-(3,5-dimethylphenyl)-amylose ; compatible with CHIRALCEL-AD-H

— CellaChrom
— Daicel



No.	Analytes
1	<i>trans</i> -stilbene oxide
2	Flavanone
3	Benzoin
4	Flurbiprofen
5	Naringenin
6	2-Phenoxypropionic acid (PPA)



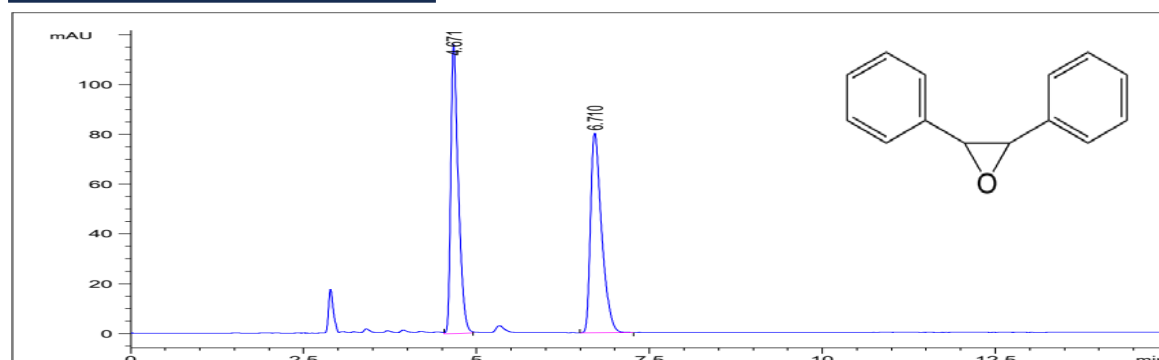
It exhibits superior quality than the Daicel's, in terms of separation ability, theoretical plate numbers, and symmetries.

Tris-(3,5-dimethylphenyl)-amylose ; compatible with CHIRALCEL IA

CellaChrom

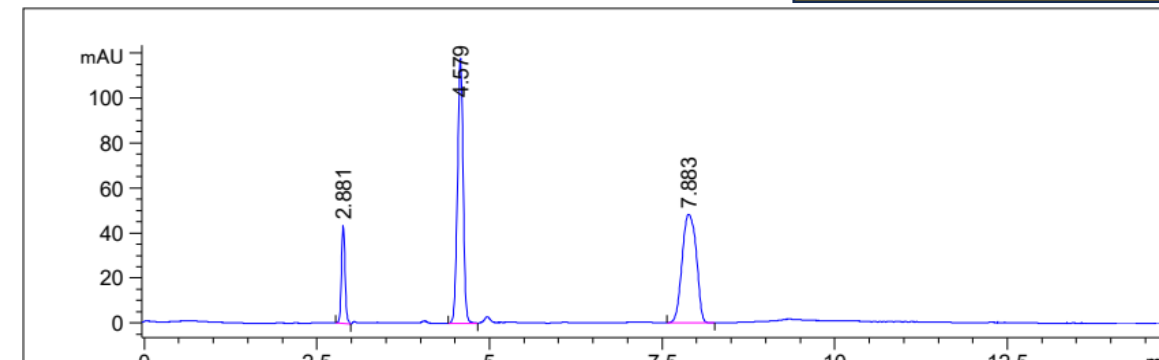
trans-stilbene oxide

Daicel



Product	RT	Plate number	Asymmetry	α	R_s
AmyloSil™-B01	4.67	9285	1.55	2.16	8.51
	6.71	8942	1.60		

*Hex : IPA = 9:1



Product	RT	Plate number	Asymmetry	α	R_s
CHIRALPAK IA (Daicel)	4.58	14934	0.90	2.94	12.04
	7.88	7508	1.08		

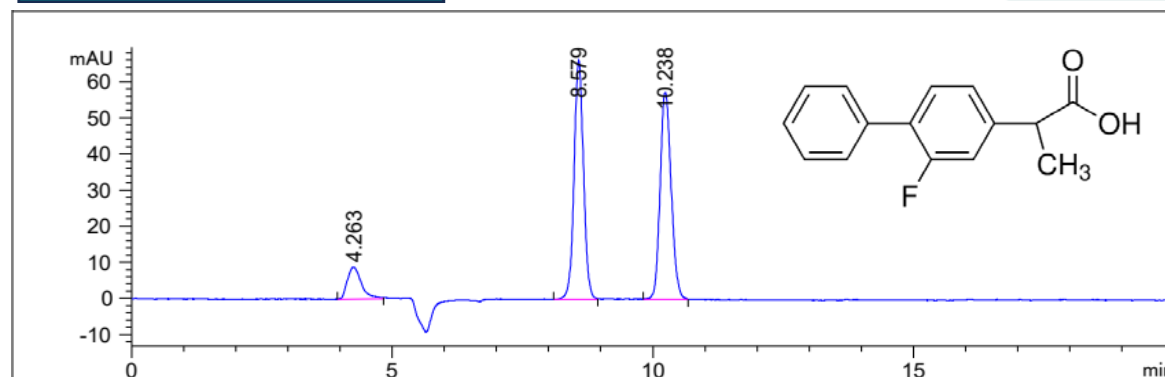
*Hex : IPA = 9:1

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CellaChrom

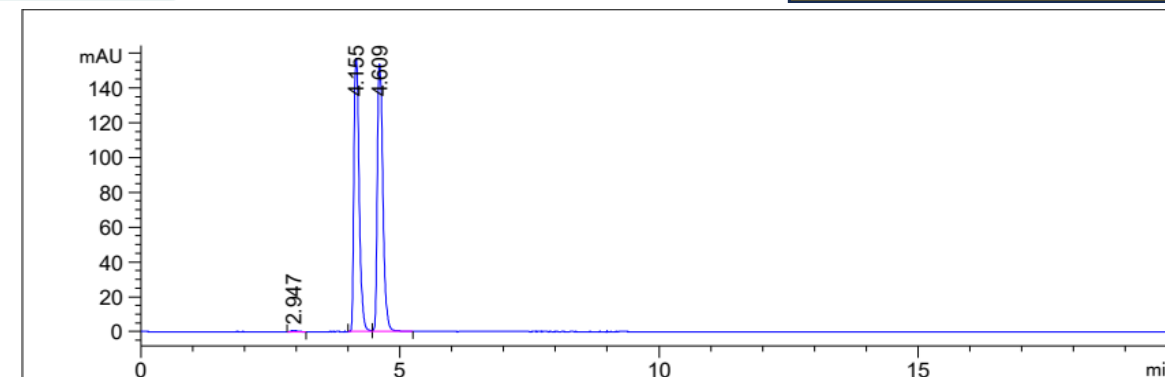
Flurbiprofen

Daicel



Product9	RT	Plate number	Asymmetry	α	R_s
AmyloSil™-B01	8.58	11194	1.04	1.38	4.70
	10.24	11321	1.26		

*Hex : EtOH : TFA = 97:3:0.1



Product	RT	Plate number	Asymmetry	α	R_s
CHIRALPAK IA (Daicel)	4.16	9286	1.76	1.38	2.42
	4.61	10056	1.73		

*Hex : IPA : TFA = 80:20:0.1

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A: >

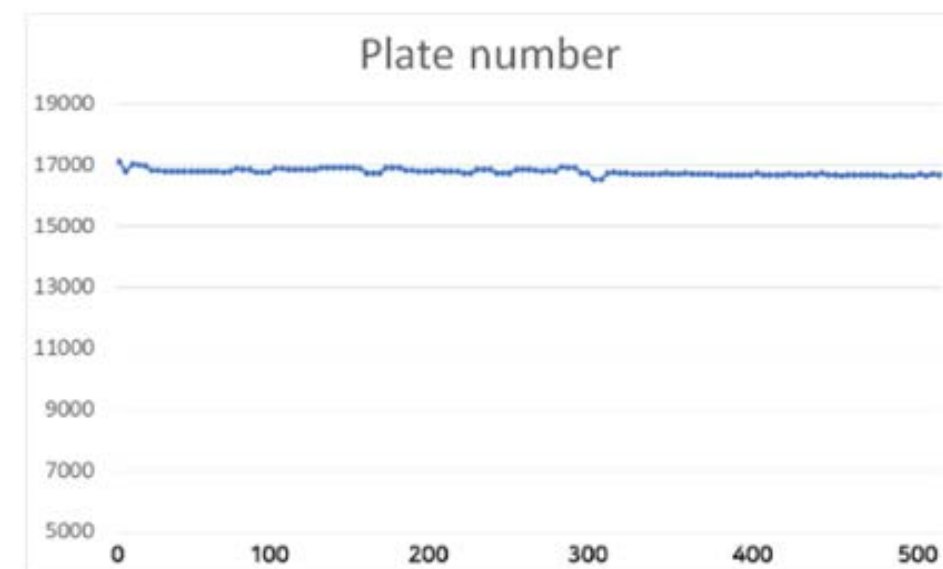
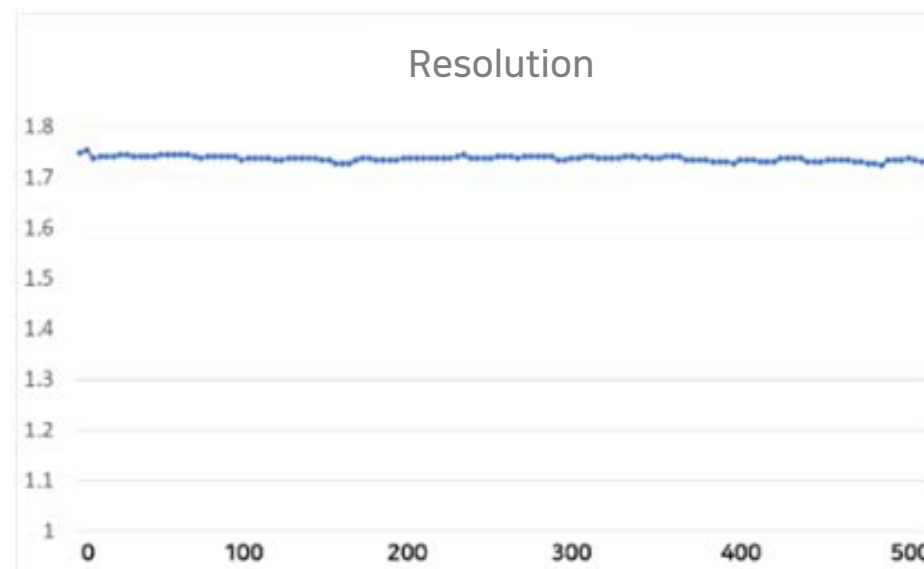
α : $\approx$

“ Our products provide excellent reproducibility and high stability ”

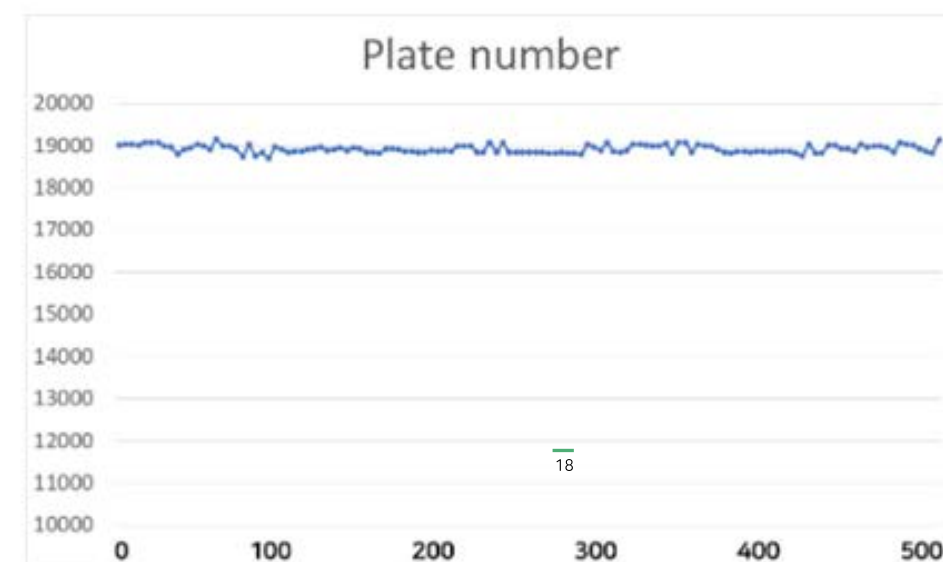
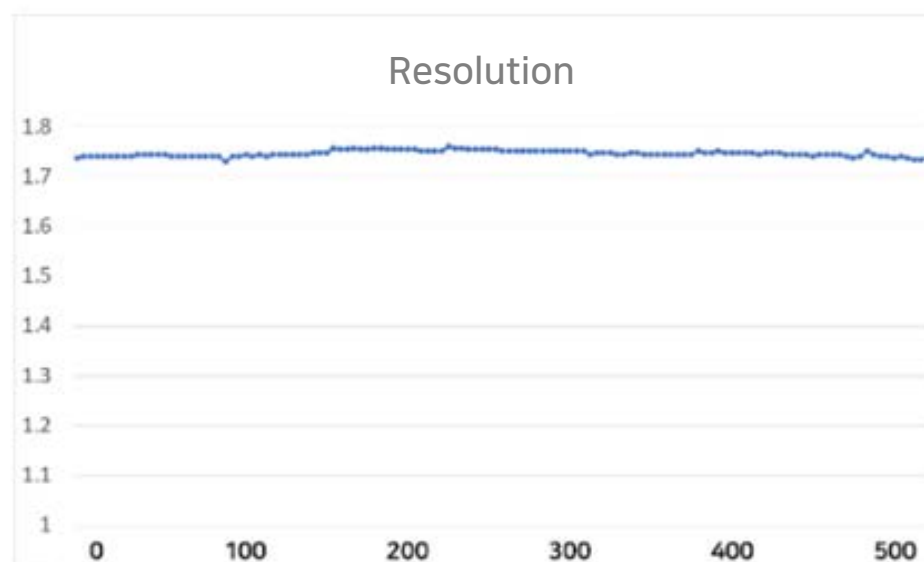
Even with 500 times injections, it provides the same performance as new !

- We guarantee excellent quality and high durability -

■ Stability test for CelluloSil™ -A01

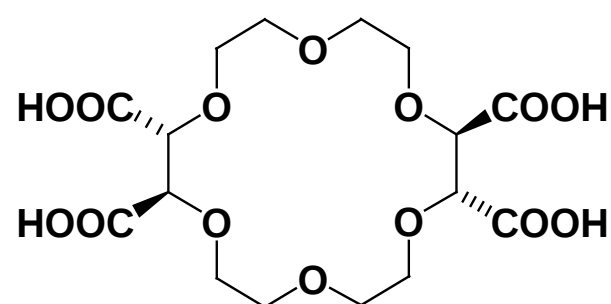


■ Stability test for AmyloSil™ -A01

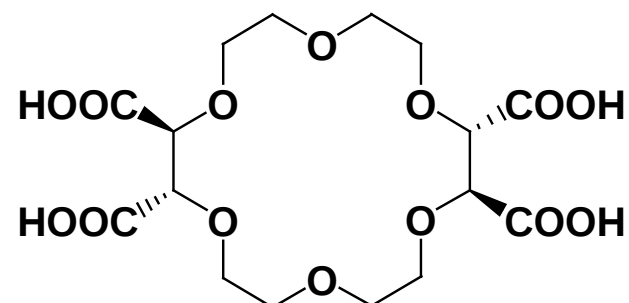


" Introduction of CrownSil "

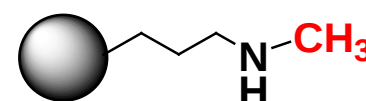
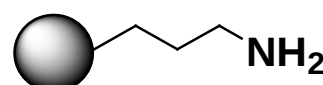
CrownSil™ and CrownSil™ ME, both are highly effective for various natural and unnatural α -amino acids, α -amino esters, primary and secondary amine derivatives, β -amino acids, and aryl α -aminoketone which were not able to separate easily.



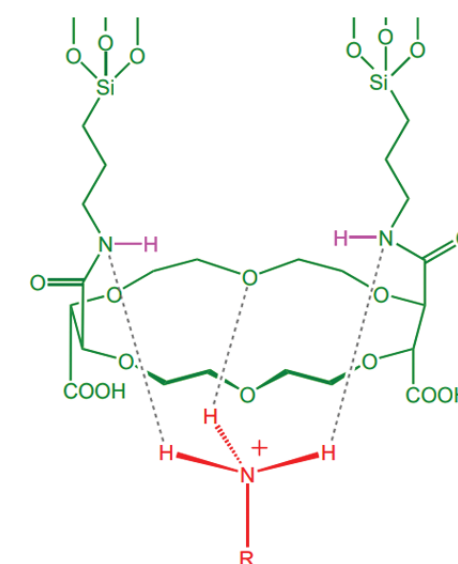
R,R-(+)-(18-Crown-6)-tetracarboxylic acid



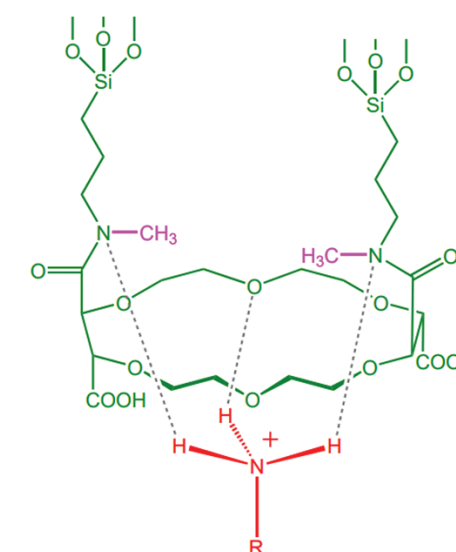
S,S-(-)-(18-Crown-6)-tetracarboxylic acid



CrownSil™



CrownSil™- Me

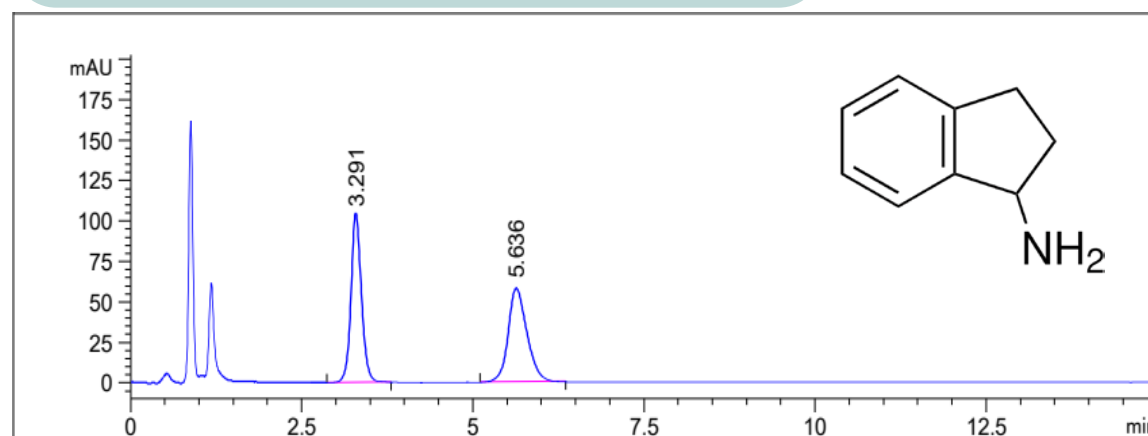


CrownSil™ and CrownSil™ ME, both are highly effective for various natural and unnatural α -amino acids, α -amino esters, primary and secondary amine derivatives, β -amino acids, and aryl α -aminoketone which were not able to separate easily.

CrownSil is good for the separation for high polar amino acids, amino alcohols and amine derivatives

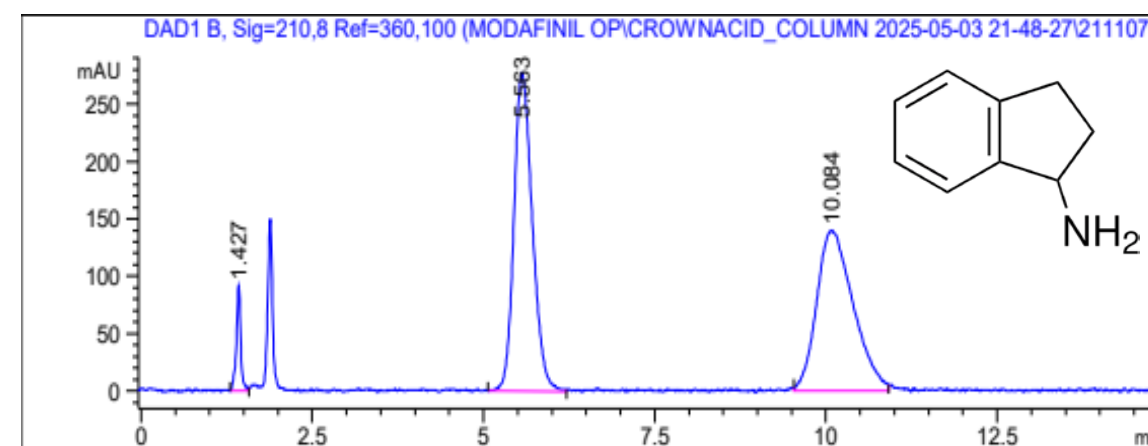
CrownSil™

1-Aminoindan (3u, 3.0mm x 10cm)



Product	RT	Plate number	Asymmetry	α	Rs
CrownSil™-R(+)	3.29	2333	1.33	1.90	5.42
	5.64	2146	1.40		

1-Aminoindan (5u, 4.6mm x 15cm)



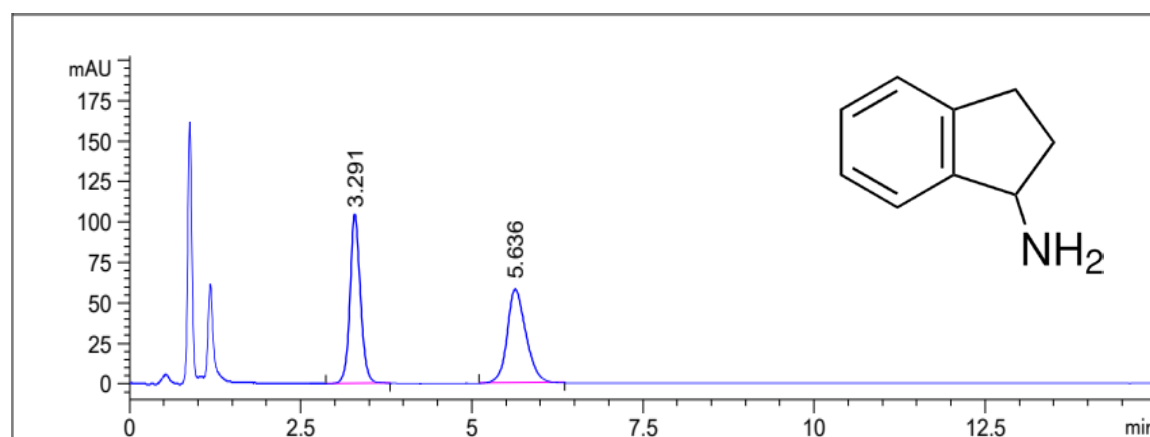
Product	RT	Plate number	Asymmetry	α	Rs
CrownSil™-R(+)	5.56	2186	1.43	2.09	6.23
	10.08	1855	1.62		

- CrownSil and CrownSil-ME are complementary products in their application -

CrownSil-Me is good for the separation for less polar amino acids, amino alcohols and amine derivatives

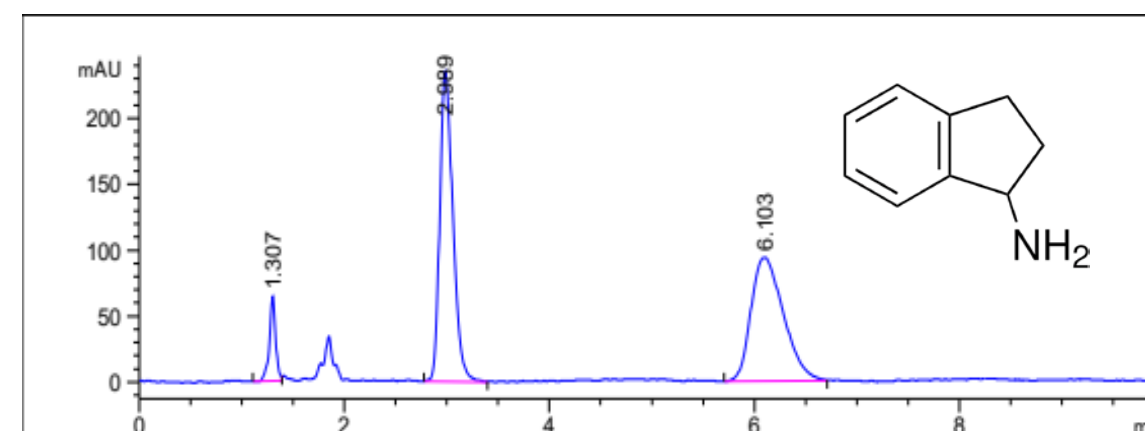
CrownSil™ - Me

1-Aminoindan (3u, 3.0mm x 10cm)



Product	RT	Plate number	Asymmetry	α	R_s
CrownSil™-R(+)	3.29	2333	1.33	1.90	5.42
	5.64	2146	1.40		

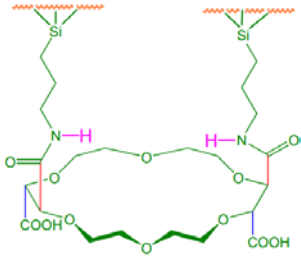
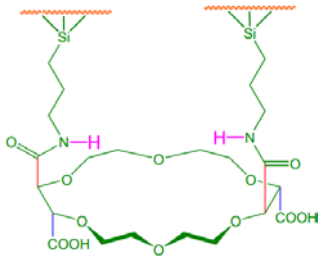
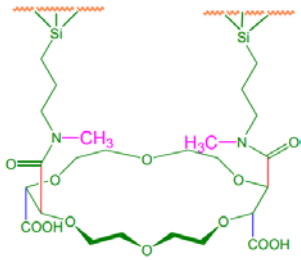
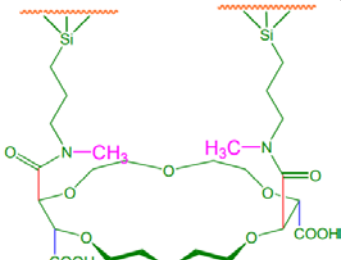
1-Aminoindan (5u, 4.6mm x 15cm)



Product	RT	Plate number	Asymmetry	α	R_s
CrownSil™-R(+)	2.99	3074	1.11	2.85	7.66
	6.10	2315	1.32		

- CrownSil and CrownSil-ME are complementary products in their application -

Types of CrownSil™ Series Columns

Product name	Type	Separation agent		USP Code	Spec.
CrownSil-R(+)	Immobilized	(+)-(18-Crown-6)- 2,3,11,12-tetracarboxylic acid		L117	3u, 3.0 x 100 mm 3u, 3.0 x 150 mm 5u, 4.6 x 150 mm 5u, 4.6 x 250 mm 10u, 10 x 250 mm
CrownSil-S(-)	Immobilized	(-)-(18-Crown-6)- 2,3,11,12-tetracarboxylic acid		L66	3u, 3.0 x 100 mm 3u, 3.0 x 150 mm 5u, 4.6 x 150 mm 5u, 4.6 x 250 mm 10u, 10 x 250 mm
CrownSil-R(+) ME	Immobilized	N-Methyl-(+)-(18-Crown-6)- 2,3,11,12-tetracarboxylic acid		-	3u, 3.0 x 100 mm 3u, 3.0 x 150 mm 5u, 4.6 x 150 mm 5u, 4.6 x 250 mm 10u, 10 x 250 mm
CrownSil-S(-) ME	Immobilized	N-Methyl-(-)-(18-Crown-6)- 2,3,11,12-tetracarboxylic acid		-	3u, 3.0 x 100 mm 3u, 3.0 x 150 mm 5u, 4.6 x 150 mm 5u, 4.6 x 250 mm 10u, 10 x 250 mm

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CONTACT

WEBSITE

<https://www.cellachrom.co.kr>

<https://www.cellachrom.com>

EMAIL

support@cellachrom.co.kr
sales@cellachrom.co.kr

katherine@cellachrom.com

S. Korea Office

#A-407 Daedeok Biz Center,
Techno 4 Ro 17, Yuseong-Gu,
Daejeon, S.Korea 34013

U.S. Office

325 W 38th st suite 1503
New York, NY 10018
U.S.A.