

SMT C30 [TA] Columns & Applications

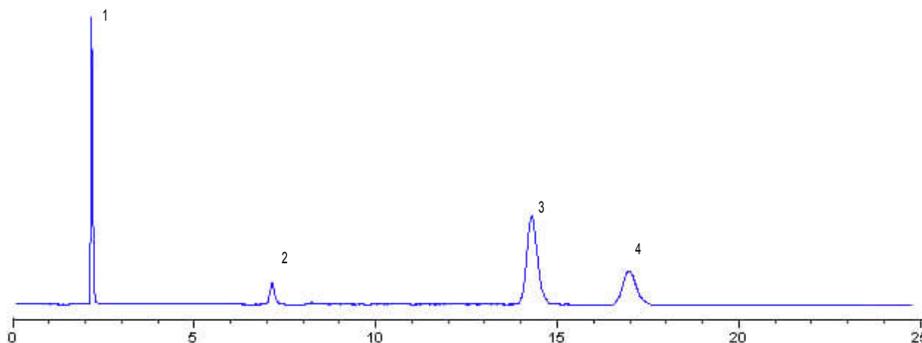
SMT-C30 columns consist of Triacetyl as the functional ligand. The columns offer selectivities that are much different from C18 reversed-phase columns when applied to separation of carotenoid and related compounds. Carotenoids consist of very diverse groups of molecules that include non-polar hydrocarbons and polar xanthophylls.

These compounds have geometric and positional isomers with very subtle molecular differences that can pose challenges in separation. Previous efforts to separate these compounds with available C18 and other reversed phases have been unsatisfactory. SMT-C30 ligand provides sufficient interactive sites for complete partitioning of these positional isomers.



Separation of Carotenoids

Column: TA-5-100/15
Solutes: 1=15-cis-beta-carotene
 2=13-cis-beta-carotene
 3=trans-alpha-carotene
 4=trans-beta-carotene
Eluent: EtOH:MeOH:THF 65:20:15 (v:v:v)
Flow: 1.0 mL/min
Detector: UV; 450nm
Temp: 30°C



SAM TA-Columns are available in various particle and pore sizes: 5 µm and 100 Å are stock sizes.

Typical Column Specification:	SAM TA-Columns
5 µm Silica	100Å
Surface Area [m ² /g]	340
% Carbon	28
Coverage [moles/m ²]	7.6

Ordering Information

SMT TA - Columns 5 µm, 100Å

*Column Dimension (length x i.d.)
150mmx4.6mm

Catalog Number
TA-5-100/15

*Column Dimension (length x i.d.)
250mmx4.6mm

Catalog Number
TA-5-100/25

*Column Dimension (length x i.d.)
150mmx3.9mm

Catalog Number
TA-5-100/154

*Column Dimension (length x i.d.)
250mmx3.9mm

Catalog Number
TA-5-100/254

*Guard column: 20mmx4.0mm; add suffix G to Catalog Number
 +Other dimensions available; Please contact SMT, Inc. for quotation