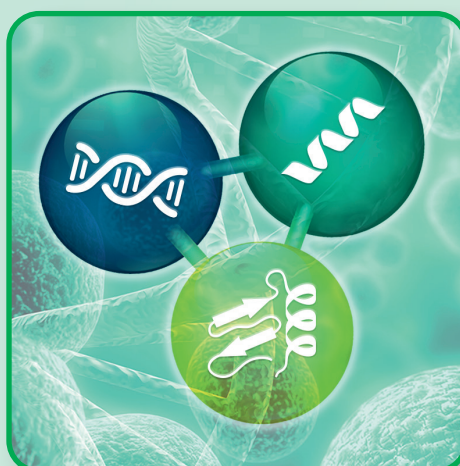


Bioinert Columns

YMC-Accura Triart

Oligonucleotides
Peptides/proteins
Metal coordinating
compounds



Highly accurate results
Exceptional peak shapes
Excellent recoveries
No carry-over

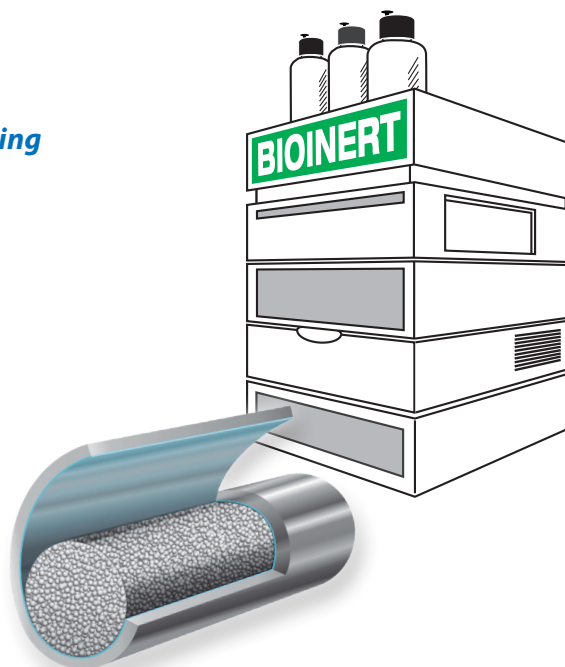
Bioinert coated YMC-Accura Triart

Features

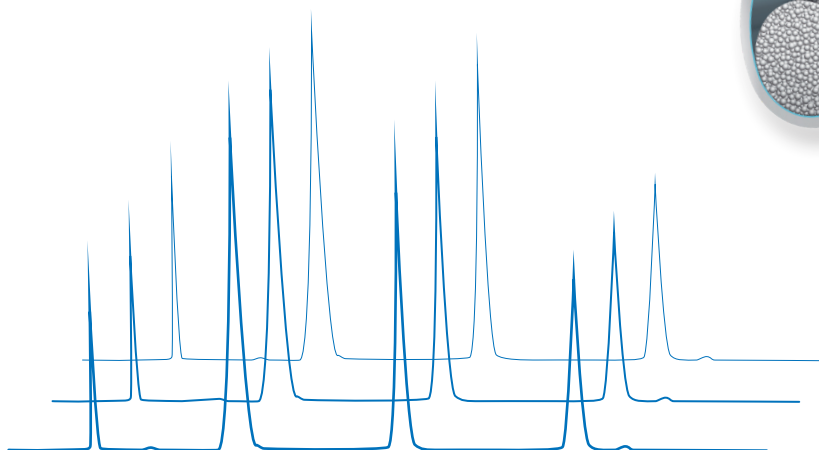
- *Exceptional peak shapes with high sensitivities*
- *Excellent recoveries without column preconditioning*
- *Superior reproducibility and no carry-over effects*
- *Ideal for highly sensitive LC/MS analyses*
- *New surface coated hardware*

Ideal choice for

- *Oligonucleotides, nucleotides*
- *Peptides and proteins*
- *Metal coordinating compounds*



*Reliable results
without
preconditioning!*



Specifications

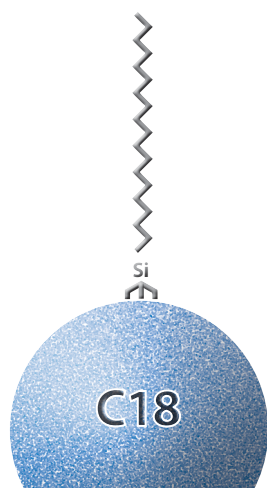
| | |
|-------------------|----------------------------------------------------------------------------------------------------------|
| YMC-Triart Phases | C18, C18 ExRS, Bio C18, C8, Bio C4, Phenyl, PFP, Diol-HILIC |
| Particle Size | 1.9, 3, 5 μm |
| Hardware | Bioinert coated stainless steel (all wetted parts incl. frits) |
| Pressure Limit | 1.9 μm : 100 MPa / 1,000 bar / 15,000 psi 3/5 μm : 45 MPa / 450 bar / 6,525 psi |
| Column Connection | No special connections required |

YMC-Accura Triart columns are an alternative to the already existing YMC-Triart metal-free, PEEK-lined columns from YMC. As the used column coating is less hydrophobic compared to the PEEK-lining, **YMC-Accura** columns are the ideal choice for e.g. more hydrophobic peptides which tend to show pronounced interactions with PEEK.

Available inert stationary phases

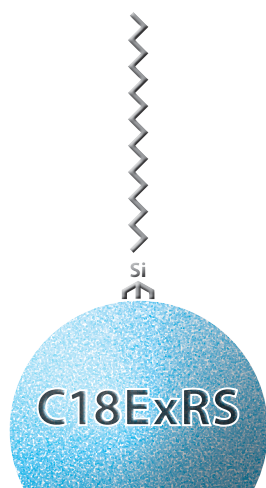
YMC
EUROPE GMBH

YMC-Triart C18



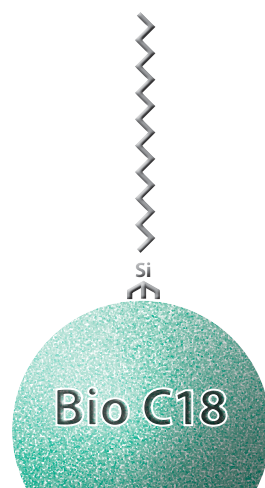
versatile applications
first choice for
method development
pH 1–12/90 °C max.
100% aqueous eluents ✓

YMC-Triart C18 ExRS



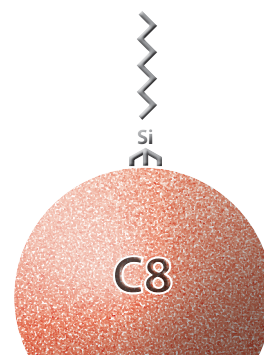
extended pH and stability
hydrophobic substances
positional isomers
pH 1–12/90 °C max.

YMC-Triart Bio C18



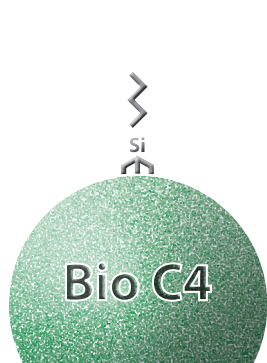
peptides/proteins/
oligonucleotides
300 Å widepore
pH 1–12/90 °C max.
100% aqueous eluents ✓

YMC-Triart C8



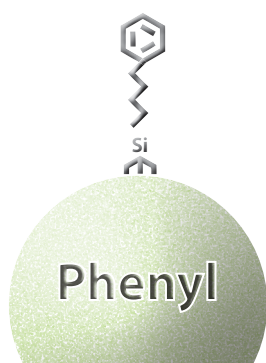
alternative to C18
short retention time
pH 1–12/90 °C max.

YMC-Triart Bio C4



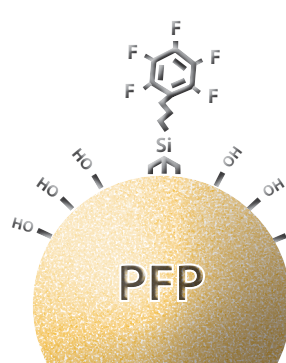
proteins/antibodies/peptides
300 Å widepore
pH 1–10/90 °C max.
100% aqueous eluents ✓

YMC-Triart Phenyl



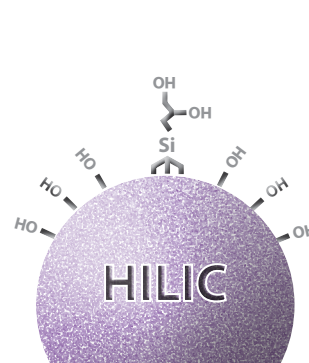
aromatic compounds
(π -electron donor)
conjugated systems
100% aqueous eluents ✓

YMC-Triart PFP



aromatic compounds
(π -electron donor)
cis-trans isomers
polar halogenated
compounds
100% aqueous eluents ✓

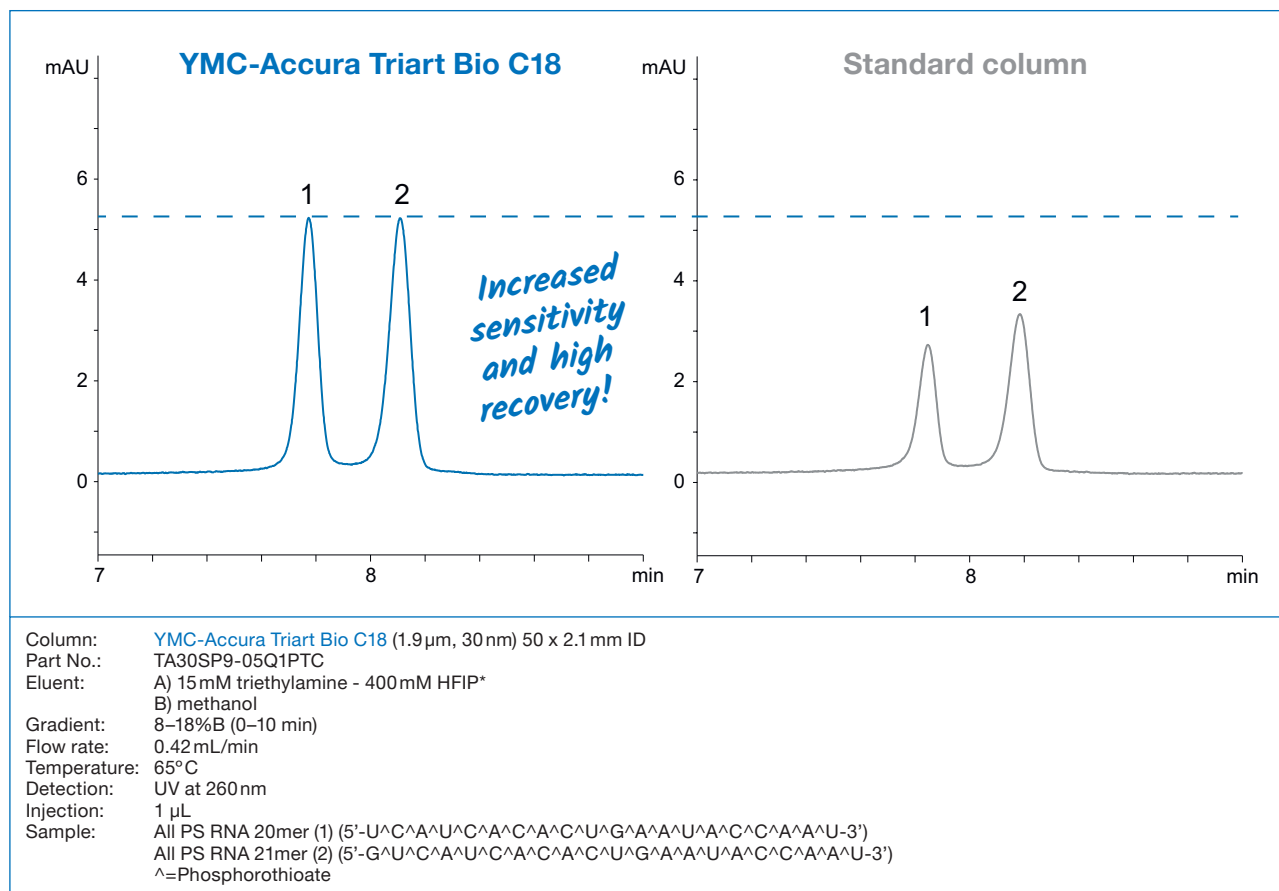
YMC-Triart Diol-HILIC



very polar compounds
less ionic adsorption
ideal choice for SFC
100% aqueous eluents ✓

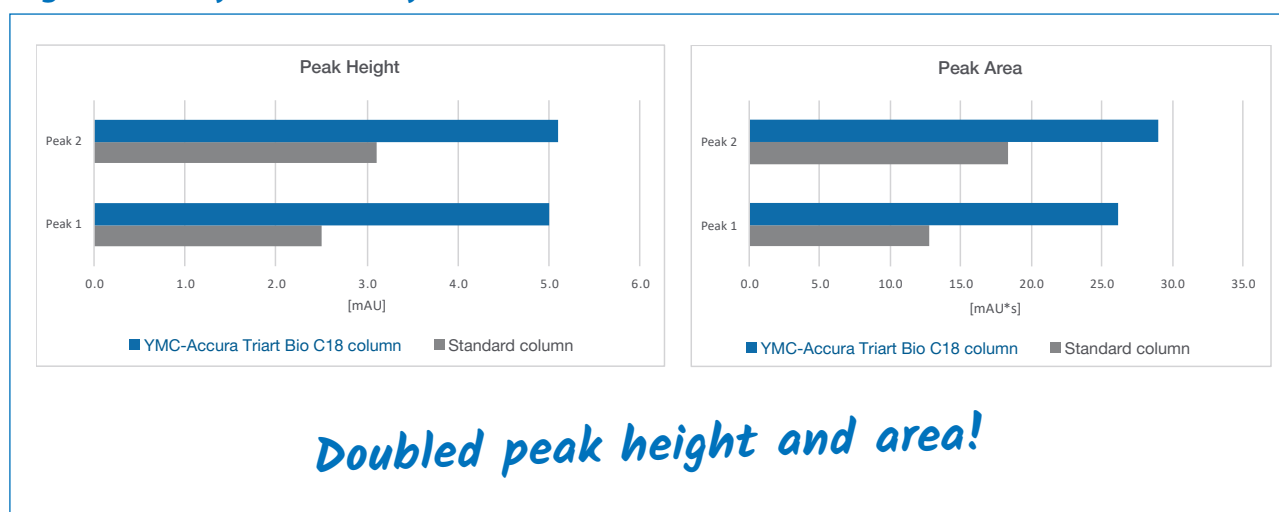
Ensured sensitivity and recovery

Ideal choice for challenging analytes such as phosphorothioate oligonucleotides



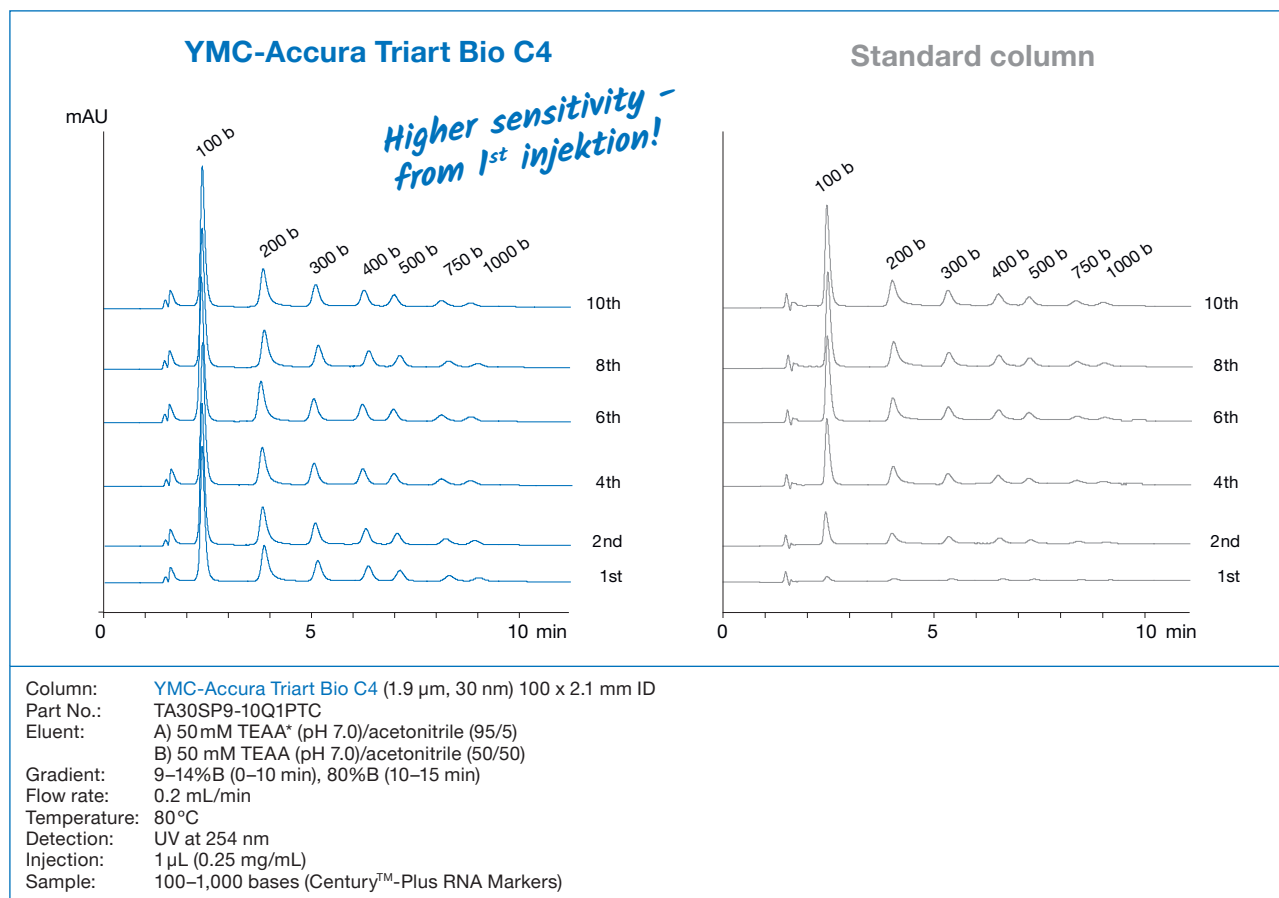
*1,1,1,3,3,3-hexafluoro-2-propanol

High sensitivity and recovery



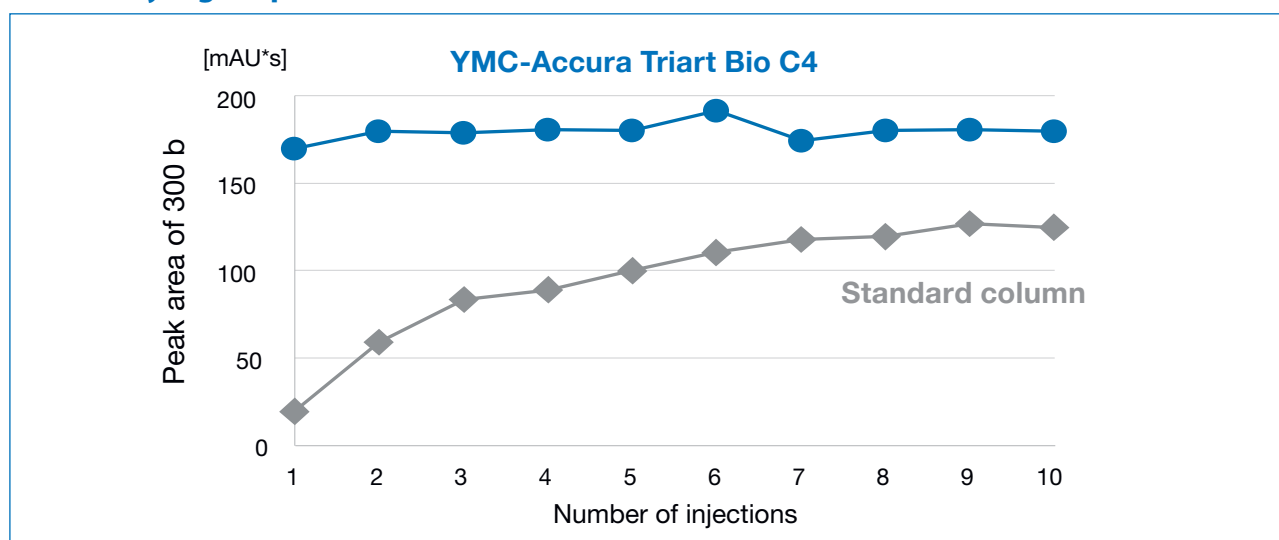
The **YMC-Accura Triart Bio C18** column provides double peak heights and peak areas for the oligonucleotides compared to those for regular stainless-steel columns. **YMC-Accura Triart** columns enhance the sensitivity significantly and help to save precious samples without any loss.

No preconditioning required for reliable results from the 1st injection



* Triethylammonium acetate

Constantly higher peak areas and therefore recoveries

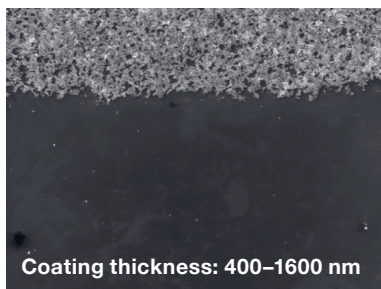


The **YMC-Accura Triart Bio C4** column shows stable peak areas from the first injection, while the standard stainless-steel column provides only 10% of the peak area (for the 300 base marker) with the first injection. Even after the tenth injection, the peak areas of the stainless-steel column are considerably less than those of the **YMC-Accura Triart** column.

Robust coating for high inertness

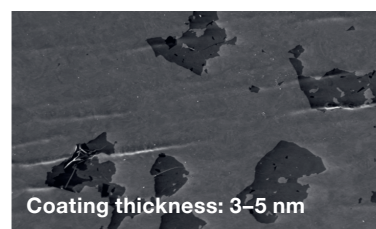
YMC
EUROPE GMBH

Durable bioinert coating



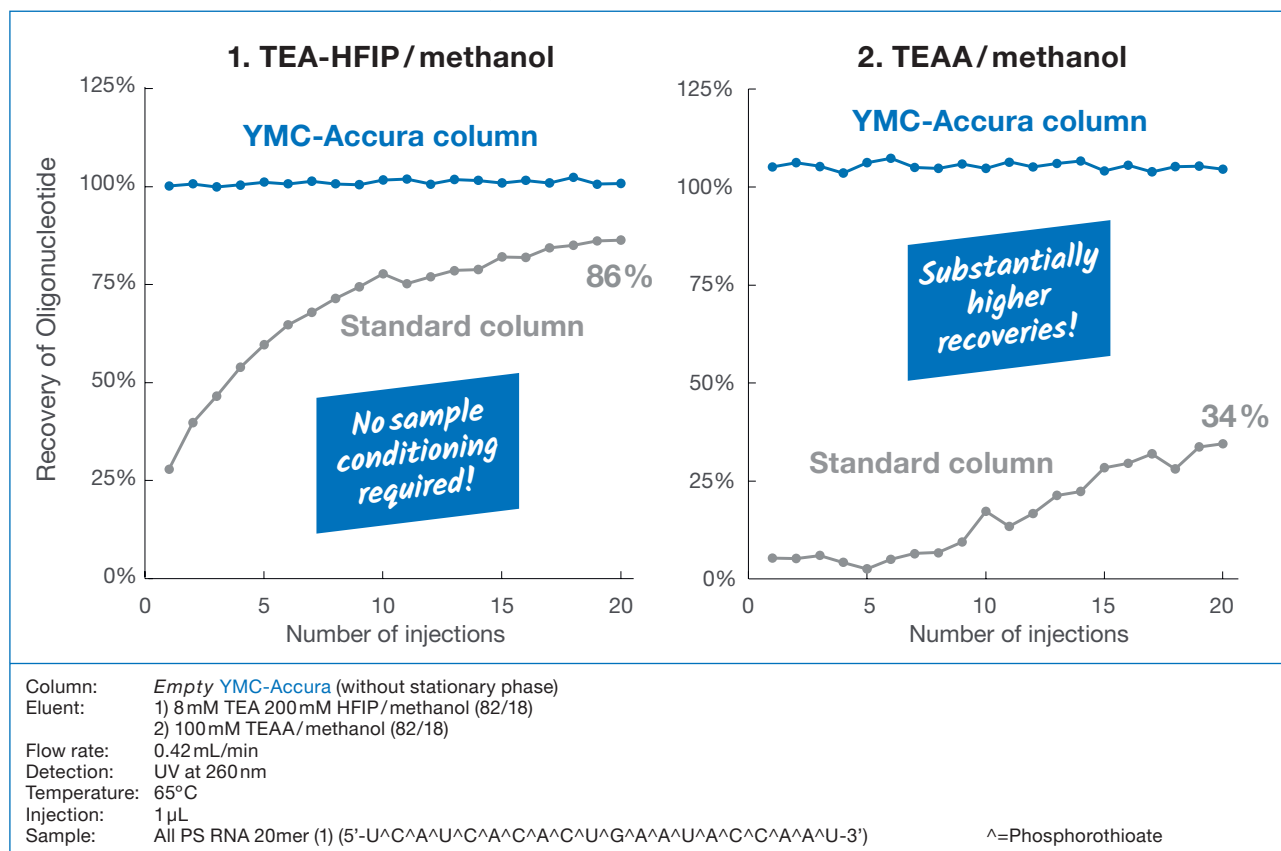
The robust bioinert coating used on **YMC-Accura** hardware is 130 to 320-fold thicker making it more durable than other similar hardware concepts. A long-term inertness against sensitive substances is ensured. In order to demonstrate its robustness, a **YMC-Accura** column was packed multiple times. Even though this is quite a challenge for the column surface, the coating remains unaffected (SEM* picture: top area is bare steel for comparison).

Other coated columns can lose their inertness over time. This will again lead to adsorption of sensitive compounds on the uncovered metallic surfaces. Peak tailing, loss of recovery and sample carry-over are typical results of the delamination of the coating. After only unpacking a coated competitor column most of the coating is already delaminated (dark spots: remaining coating).



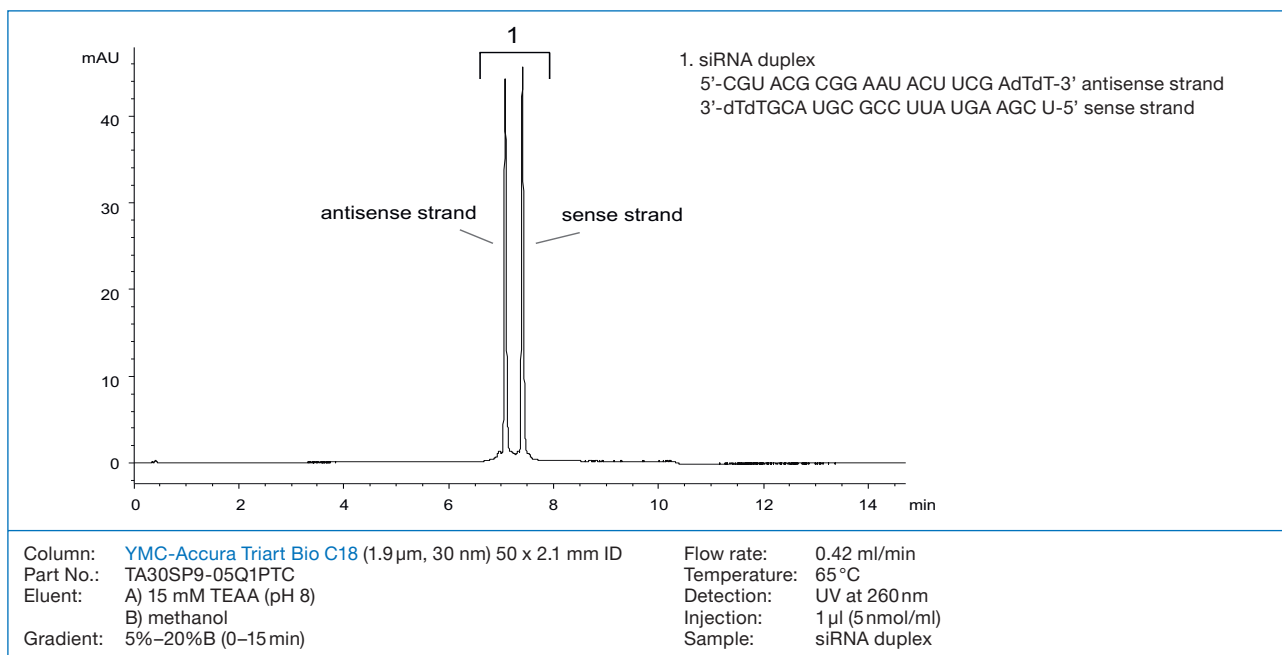
*Scanning Electron Microscope

High surface inertness without any adsorption

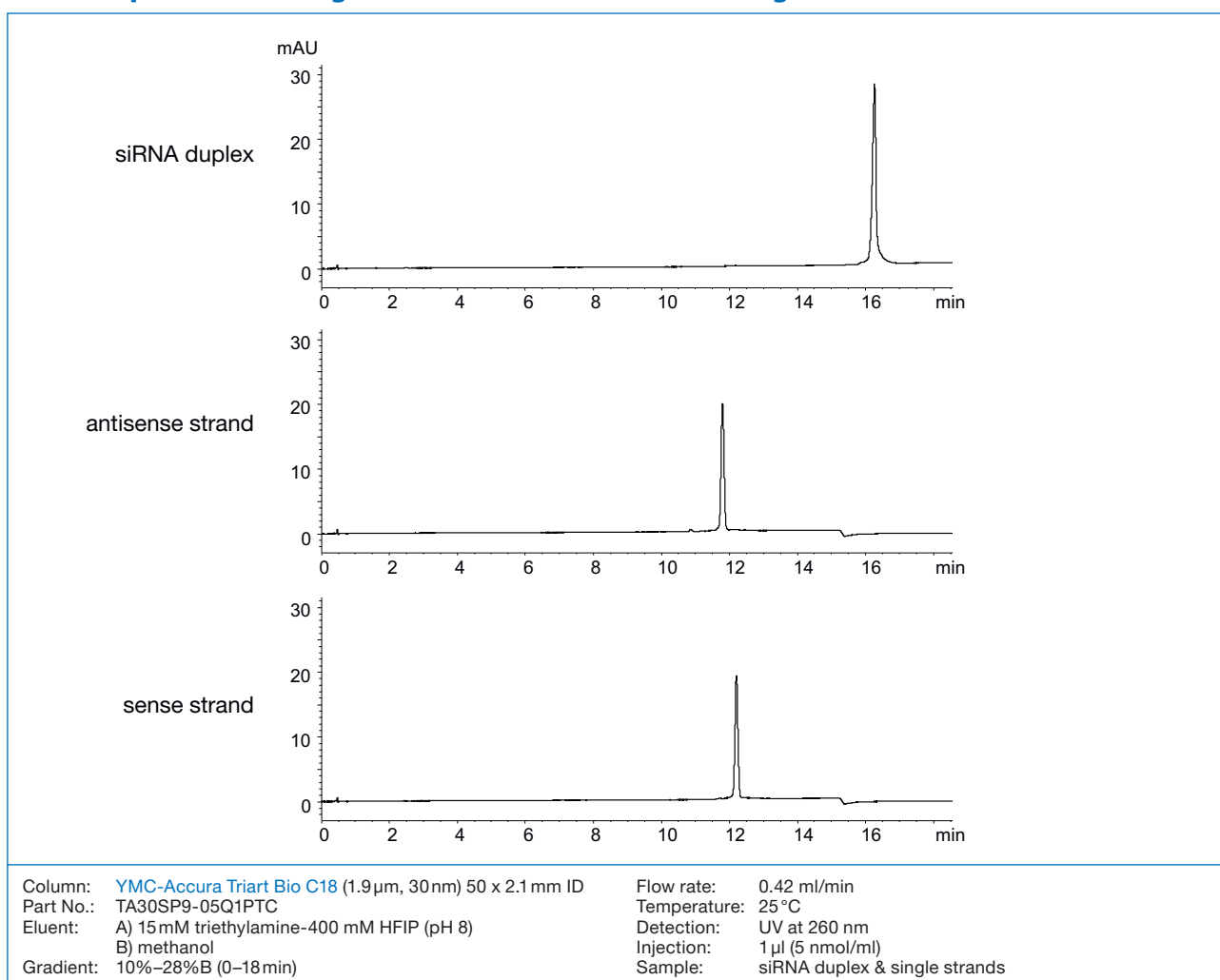


The **YMC-Accura** hardware with its inert surface area prevents adsorption of oligonucleotides using a range of different buffers. No sample conditioning is required. **YMC-Accura** columns further provide significantly higher recoveries and sensitivities that cannot be achieved with regular stainless steel columns – even after conditioning with 20 sample injections. These ready-to-use columns ensure high recovery and reproducibility from the very first use.

siRNA duplex under denaturing conditions



siRNA duplex and its single strands under non-denaturing conditions



Ordering information

YMC-Accura Triart 1.9 µm UHPLC columns (max. pressure 1,000 bar)

| Phase | Column ID (mm) | Column length (mm) | | |
|-------------------|-------------------|-----------------------|------------------|------------------|
| | | 50 | 100 | 150 |
| C18 | 2.1 | TA12SP9-05Q1PTC | TA12SP9-10Q1PTC | TA12SP9-15Q1PTC |
| C18 ExRS | 2.1 | TAR08SP9-05Q1PTC | TAR08SP9-10Q1PTC | TAR08SP9-15Q1PTC |
| Bio C18 | 2.1 | TA30SP9-05Q1PTC | TA30SP9-10Q1PTC | TA30SP9-15Q1PTC |
| C8 | 2.1 | TO12SP9-05Q1PTC | TO12SP9-10Q1PTC | TO12SP9-15Q1PTC |
| Bio C4 | 2.1 | TB30SP9-05Q1PTC | TB30SP9-10Q1PTC | TB30SP9-15Q1PTC |
| Phenyl | 2.1 | TPH12SP9-05Q1PTC | TPH12SP9-10Q1PTC | TPH12SP9-15Q1PTC |
| PFP | 2.1 | TPF12SP9-05Q1PTC | TPF12SP9-10Q1PTC | TPF12SP9-15Q1PTC |
| Diol-HILIC | 2.1 | TDH12SP9-05Q1PTC | TDH12SP9-10Q1PTC | TDH12SP9-15Q1PTC |

YMC-Accura Triart 3 µm HPLC columns (max. pressure 450 bar)

| Phase | Column ID (mm) | Column length (mm) | | |
|-------------------|-------------------|-----------------------|------------------|------------------|
| | | 50 | 100 | 150 |
| C18 | 2.1 | TA12S03-05Q1PTC | TA12S03-10Q1PTC | TA12S03-15Q1PTC |
| | 4.6 | TA12S03-0546PTC | TA12S03-1046PTC | TA12S03-1546PTC |
| C18 ExRS | 2.1 | TAR08S03-05Q1PTC | TAR08S03-10Q1PTC | TAR08S03-15Q1PTC |
| | 4.6 | TAR08S03-0546PTC | TAR08S03-1046PTC | TAR08S03-1546PTC |
| Bio C18 | 2.1 | TA30S03-05Q1PTC | TA30S03-10Q1PTC | TA30S03-15Q1PTC |
| | 4.6 | TA30S03-0546PTC | TA30S03-1046PTC | TA30S03-1546PTC |
| C8 | 2.1 | TO12S03-05Q1PTC | TO12S03-10Q1PTC | TO12S03-15Q1PTC |
| | 4.6 | TO12S03-0546PTC | TO12S03-1046PTC | TO12S03-1546PTC |
| Bio C4 | 2.1 | TB30S03-05Q1PTC | TB30S03-10Q1PTC | TB30S03-15Q1PTC |
| | 4.6 | TB30S03-0546PTC | TB30S03-1046PTC | TB30S03-1546PTC |
| Phenyl | 2.1 | TPH12S03-05Q1PTC | TPH12S03-10Q1PTC | TPH12S03-15Q1PTC |
| | 4.6 | TPH12S03-0546PTC | TPH12S03-1046PTC | TPH12S03-1546PTC |
| PFP | 2.1 | TPF12S03-05Q1PTC | TPF12S03-10Q1PTC | TPF12S03-15Q1PTC |
| | 4.6 | TPF12S03-0546PTC | TPF12S03-1046PTC | TPF12S03-1546PTC |
| Diol-HILIC | 2.1 | TDH12S03-05Q1PTC | TDH12S03-10Q1PTC | TDH12S03-15Q1PTC |
| | 4.6 | TDH12S03-0546PTC | TDH12S03-1046PTC | TDH12S03-1546PTC |

YMC-Accura Triart 5 µm HPLC columns (max. pressure 450 bar)

| Phase | Column ID (mm) | Column length (mm) | | |
|-------------------|-------------------|-----------------------|------------------|------------------|
| | | 50 | 100 | 150 |
| C18 | 2.1 | TA12S05-05Q1PTC | TA12S05-10Q1PTC | TA12S05-15Q1PTC |
| | 4.6 | TA12S05-0546PTC | TA12S05-1046PTC | TA12S05-1546PTC |
| C18 ExRS | 2.1 | TAR08S05-05Q1PTC | TAR08S05-10Q1PTC | TAR08S05-15Q1PTC |
| | 4.6 | TAR08S05-0546PTC | TAR08S05-1046PTC | TAR08S05-1546PTC |
| Bio C18 | 2.1 | TA30S05-05Q1PTC | TA30S05-10Q1PTC | TA30S05-15Q1PTC |
| | 4.6 | TA30S05-0546PTC | TA30S05-1046PTC | TA30S05-1546PTC |
| C8 | 2.1 | TO12S05-05Q1PTC | TO12S05-10Q1PTC | TO12S05-15Q1PTC |
| | 4.6 | TO12S05-0546PTC | TO12S05-1046PTC | TO12S05-1546PTC |
| Bio C4 | 2.1 | TB30S05-05Q1PTC | TB30S05-10Q1PTC | TB30S05-15Q1PTC |
| | 4.6 | TB30S05-0546PTC | TB30S05-1046PTC | TB30S05-1546PTC |
| Phenyl | 2.1 | TPH12S05-05Q1PTC | TPH12S05-10Q1PTC | TPH12S05-15Q1PTC |
| | 4.6 | TPH12S05-0546PTC | TPH12S05-1046PTC | TPH12S05-1546PTC |
| PFP | 2.1 | TPF12S05-05Q1PTC | TPF12S05-10Q1PTC | TPF12S05-15Q1PTC |
| | 4.6 | TPF12S05-0546PTC | TPF12S05-1046PTC | TPF12S05-1546PTC |
| Diol-HILIC | 2.1 | TDH12S05-05Q1PTC | TDH12S05-10Q1PTC | TDH12S05-15Q1PTC |
| | 4.6 | TDH12S05-0546PTC | TDH12S05-1046PTC | TDH12S05-1546PTC |

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