

VANGUARD PRE-COLUMNS AND CARTRIDGES



Using a guard column extends the life of analytical columns without compromising chromatographic performance. Waters offers VanGuard Column Protection products in multiple particle sizes and stationary phases, making them ideally suited for the physical and chemical protection of all analytical columns.

VanGuard Columns offer:

- Minimal chromatographic effects and optimized performance
- Superior protection for UPLC, UHPLC, and HPLC columns with particle sizes between 16 and 5 μm
- Compatible operating pressures up to 18,000 psi (1240 bar)

Selection Guide

VanGuard Column Protection Cartridge/Pre-column selection based on analytical column I.D.			
Column I.D.	Particle Size	VanGuard Format	VanGuard Dimension
2.1 mm	<2 μm	Pre-column	2.1 \times 5 mm
2.1 mm	>2 μm	Cartridge Column	2.1 \times 5 mm
3.0 mm	>2 μm	Cartridge Column	2.1 \times 5 mm
3.9 mm	>2 μm	Cartridge Column	3.9 \times 5 mm
4.6 mm	>2 μm	Cartridge Column	3.9 \times 5 mm

Ordering Information

VanGuard Pre-columns (Guard Columns)

Chemistry	Particle Size	Dimension	P/N (3/pk)
BEH C ₁₈	1.7 μm	2.1 \times 5 mm	186003975
BEH Shield RP18	1.7 μm	2.1 \times 5 mm	186003977
BEH C ₈	1.7 μm	2.1 \times 5 mm	186003978
BEH Phenyl	1.7 μm	2.1 \times 5 mm	186003979
BEH HILIC	1.7 μm	2.1 \times 5 mm	186003980
BEH Amide	1.7 μm	2.1 \times 5 mm	186004799
CORTECS C ₁₈ ⁺	1.6 μm	2.1 \times 5 mm	186007125
CORTECS C ₁₈	1.6 μm	2.1 \times 5 mm	186007123
CORTECS HILIC	1.6 μm	2.1 \times 5 mm	186007124
CORTECS Shield RP18	1.6 μm	2.1 \times 5 mm	186008713
CORTECS T3	1.6 μm	2.1 \times 5 mm	186008508
CSH C ₁₈	1.7 μm	2.1 \times 5 mm	186005303
CSH Fluoro-Phenyl	1.7 μm	2.1 \times 5 mm	186005358
CSH Phenyl-Hexyl	1.7 μm	2.1 \times 5 mm	186005413
HSS C ₁₈	1.8 μm	2.1 \times 5 mm	186003981
HSS C ₁₈ SB	1.8 μm	2.1 \times 5 mm	186004136
HSS T3	1.8 μm	2.1 \times 5 mm	186003976
HSS PFP	1.8 μm	2.1 \times 5 mm	186005974
HSS Cyano	1.8 μm	2.1 \times 5 mm	186005995