

NUCLEODUR® PFP

High purity silica phase for HPLC
Pentafluorophenyl-propyl modification
Multi-endcapped · 8 % C · USP L43

✓ **Key features:**

- Hydrophobic phase with alternative selectivity in comparison to classical C18 modifications
- Separation mechanism based on 4 retention mechanisms (polar interactions (H bonds), dipole-dipole interactions, π - π interactions, hydrophobic interactions)
- Suitable for **LC/MS** due to low bleeding characteristics

✓ **Technical characteristics:**

Phase with pentafluorophenyl-propyl modification and multi-endcapping;
 pore size 110 Å; particle sizes 3 µm and 5 µm;
 carbon content 8%; pH stability 1–9

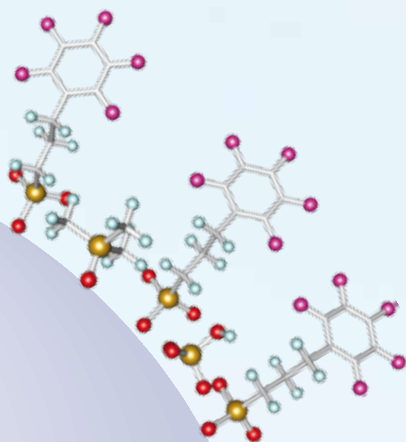
✓ **Recommended application:**

Aromatic and unsaturated compounds, phenols, halogenated compounds, isomers,
 polar compounds like pharmaceuticals, antibiotics; high retention of basic compounds;
USP L43

polar modification with orthogonal selectivity ●

ideal supplement for C₁₈ phases ●

perfluorinated phase with high stability ●



Phenol isomers

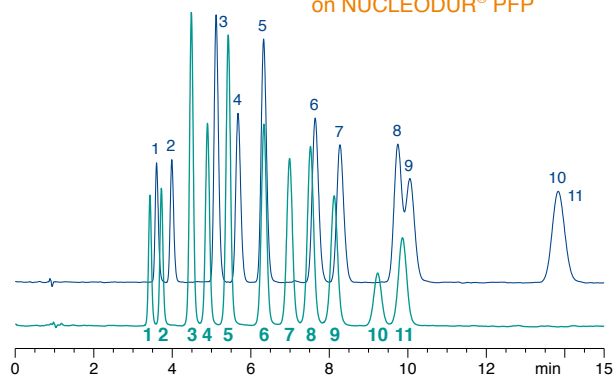
MN Appl. No. 124531

Column: 125 x 4 mm NUCLEODUR® PFP, 5 µm
 125 x 4 mm NUCLEODUR® C₁₈ HTec, 5 µm
 Eluent: acetonitrile, 0.1 % formic acid – water, 0.1 % formic acid (35:65, v/v)
 Flow rate: 1 mL/min
 Temperature: 35 °C
 Detection: UV, 280 nm

Peaks:

- | | |
|-----------------------|-----------------------|
| 1. <i>o</i> -Cresol | 6. 2,6-Dichlorophenol |
| 2. <i>m</i> -Cresol | 7. 2,3-Dichlorophenol |
| 3. 3,4-Dimethylphenol | 8. 2,4-Dichlorophenol |
| 4. 3,5-Dimethylphenol | 9. 3,4-Dichlorophenol |
| 5. 2,5-Dimethylphenol | 10. 2,4-Dibromophenol |
| | 11. 3,5-Dibromophenol |

separation of all 11 phenol isomers on NUCLEODUR® PFP



Beta- and dexamethasone

MN Appl. No. 124771

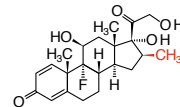
Column: 100 x 4.6 mm NUCLEODUR® PFP, 5 µm
 100 x 4.6 mm Phenomenex LUNA® PFP(2), 5 µm
 Eluent: acetonitrile – water (20:80, v/v)
 Flow rate: 1.3 mL/min
 Temperature: 30 °C
 Detection: UV, 260 nm

Peaks:

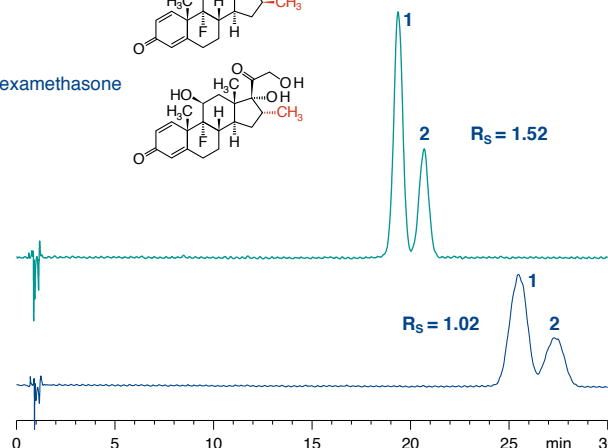
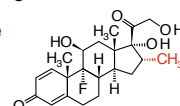
- Betamethasone
- Dexamethasone

superior separation of both stereoisomers beta- and dexamethasone

betamethasone



dexamethasone



Ordering information

Length →	50 mm	75 mm	100 mm	125 mm	150 mm	250 mm
NUCLEODUR® PFP, 3 µm						particle size 3 µm

EC columns (pack of 1 each)

2 mm ID	760443.20			760447.20	760448.20	760449.20
3 mm ID	760443.30			760447.30	760448.30	760449.30
4 mm ID	760443.40			760447.40	760448.40	760449.40
4.6 mm ID	760443.46	760445.46	760446.46	760447.46	760448.46	760449.46

EC guard columns* 4 x 2 mm: 761976.20 4 x 3 mm: 761976.30

CC guard columns** 8 x 3 mm: 761145.30 8 x 4 mm: 761145.40

NUCLEODUR® PFP, 5 µm

particle size 5 µm

EC columns (pack of 1 each)

2 mm ID	760453.20			760457.20	760458.20	760459.20
3 mm ID	760453.30			760457.30	760458.30	760459.30
4 mm ID	760453.40			760457.40	760458.40	760459.40
4.6 mm ID	760453.46	760455.46	760456.46	760457.46	760458.46	760459.46

EC guard columns* 4 x 2 mm: 761977.20 4 x 3 mm: 761977.30

CC guard columns** 8 x 3 mm: 761146.30 8 x 4 mm: 761146.40

Guard columns for EC columns with ID (pack of 3 each)

	2 mm	3 mm	4 mm	4.6 mm	Guard column holder
* EC guard columns for Column Protection System guard column holder	EC 4/2	4/3	4/3	4/3	718966
** ChromCart® guard columns for EC guard column holder	CC 8/3	8/3	8/4	8/4	721359

www.mn-net.com

MACHEREY-NAGEL



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