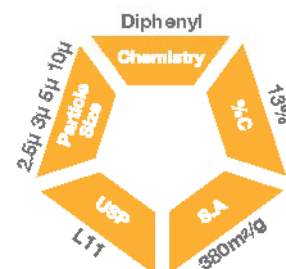
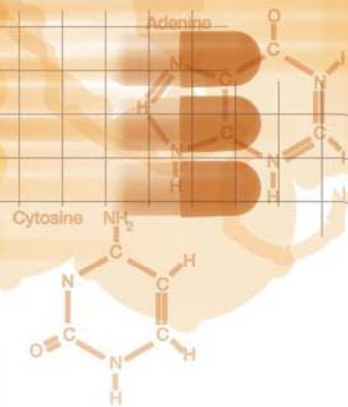


# Fortis Phenyl™

- Unique Selectivity
- Separate Positional Isomers
- No "MS bleed", stable hydrophobic ligand
- Enhanced Polar Retention

Fortis Phenyl is designed to provide characteristics which will enhance selectivity. It provides the analyst with extra retention of compounds containing aromatic functionality. Extra selectivity and retention can be found for polar substrates, along with metabolite profiling.

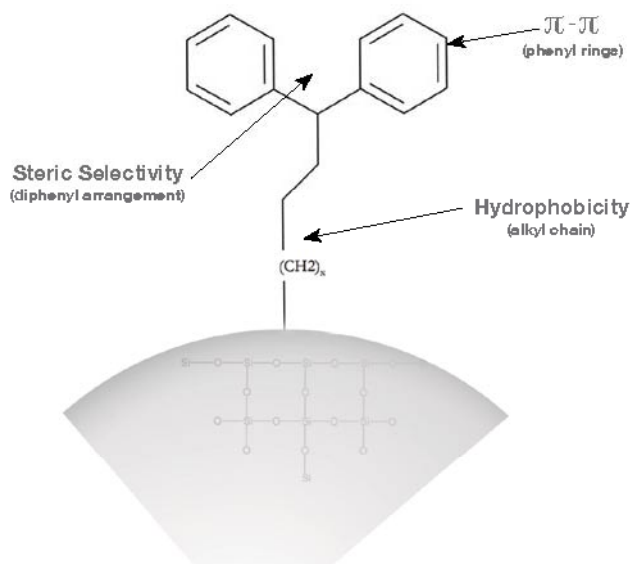


## Unique Functionality

Fortis Phenyl is based upon a unique di-phenyl functionality. Three controlled mechanisms of interaction can occur:

This allows for unique resolution of closely related species, and metabolites. No complex mobile phases are necessary simplifying method development

- $\pi$ - $\pi$  High Selectivity
- Resolution enhanced
- Sharp Peak Shapes
- Highly Stable phenyl ligand



## Separate Positional Isomers

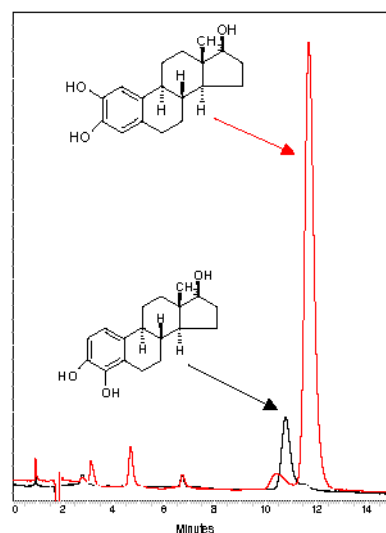
Selectivity of compounds normally difficult to resolve on a hydrophobic alkyl chain stationary phase is simplified by the  $\pi$ - $\pi$  interactions provided by the phenyl functionality.

In this application two hydroxyestradiol steroids exhibit resolution from each other, which is not achievable on alkyl chain phases. No complex mobile phases are necessary.

- High Selectivity
- Resolution enhanced
- Sharp Peak Shapes

**Column:** Fortis Phenyl 150x4.6mm 5µ  
**p/n:** FPH-050705  
**Mobile Phase:** 40:60 H<sub>2</sub>O : MeOH  
**Flow:** 1ml/min  
**Temp:** 20°C  
**Wavelength:** 210nm

1. 4-Hydroxyestradiol (mw=288.38)
2. 2-Hydroxyestradiol (mw=288.38)





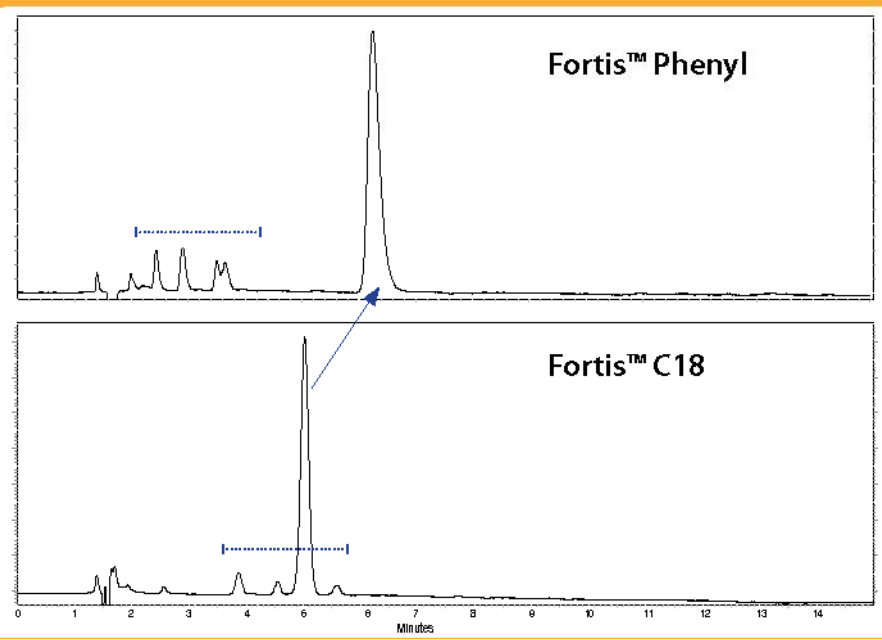
## Di-phenyl vs C18

Selectivity of the Fortis di-phenyl is radically different to that of a C18 stationary phase.

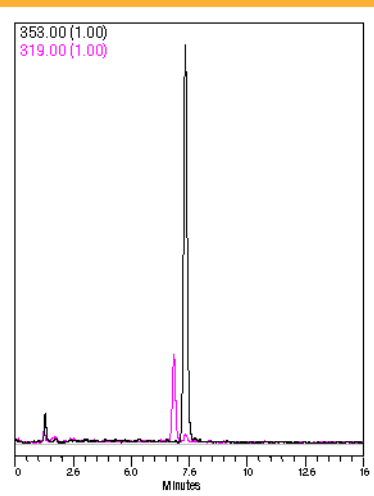
In this pharmaceutical mixture we can see an increase in retention of the parent drug, whilst the degradants are all eluted quickly, removing them from co-elution with the parent.

Selectivity such as this can be extremely useful, combined with the ability to separate closely related species such as metabolites and positional isomers.

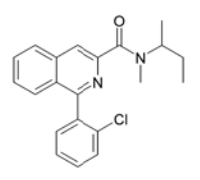
Data Courtesy of: Major Pharmaceutical Company, USA



## PET Tracer - PK11195



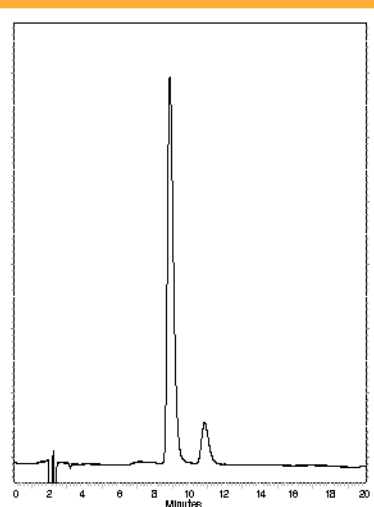
1. Dechlorinated PK11195
2. PK11195



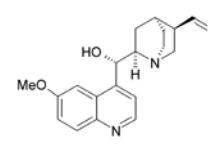
**Column:** Fortis Phenyl 150x4.6mm 5µ  
**p/n:** FPH-050705  
**Mobile Phase:** 40 : 60 H<sub>2</sub>O : ACN  
**Flow:** 1ml/min  
**Temp:** 25°C  
**Wavelength:** MS Detection

Data Courtesy of: Wolfson Molecular Imaging Centre

## Antiarrhythmic



1. Quinidine
2. Dihydroquinidine



**Column:** Fortis Phenyl 150x4.6mm 5µ  
**p/n:** FPH-050705  
**Mobile Phase:** 70 : 30 H<sub>2</sub>O + 0.1% formic acid MeOH  
**Flow:** 1ml/min  
**Temp:** 25°C  
**Wavelength:** 235nm

Fortis Phenyl	Column Length			
	50	100	150	250
2.1	FPH-0203xx	FPH-0205xx	FPH-0207xx	-
3.0	FPH-0303xx	FPH-0305xx	FPH-0307xx	-
4.6	FPH-0503xx	FPH-0505xx	FPH-0507xx	FPH-0509xx

Fortis Phenyl Guards	Length
	10
Column Diameter 2.1	FPH-0200xxG
4.6	FPH-0500xxG

Replace xx - 02 for 2.5µm - 03 for 3µm - 05 for 5µm - 10 for 10µm

