

# SHINWA EXPRESS

Application

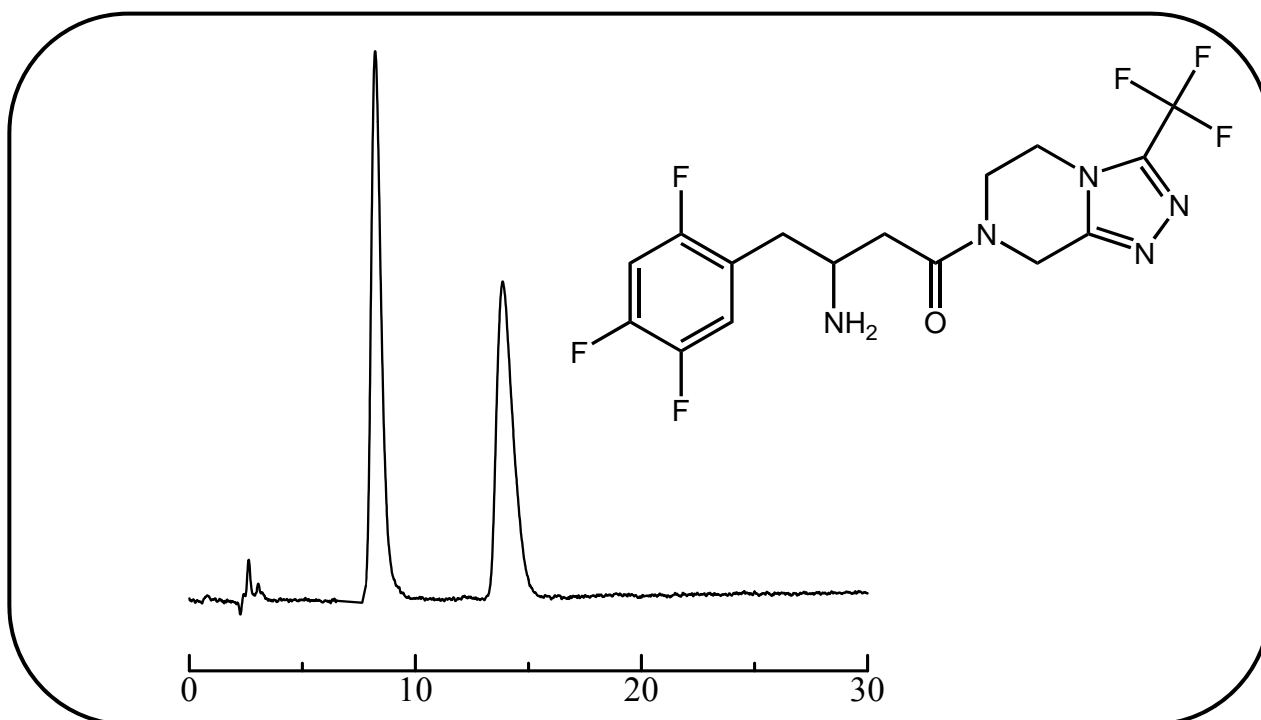
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## Analysis of sitagliptin using the ULTRON ES-OVM

Sitagliptin is an oral hypoglycemic drug and one of the DPP-4 inhibitors. As compared with the conventional oral hypoglycemic drugs, it is less likely to occur hypoglycemia because it decreases the blood glucose level by increasing the insulin secretion when the blood glucose level is higher and an antihyperglycemic effect is inhibited when the blood glucose level reaches normal range. Shown below is a reversed-phase analysis of sitagliptin performed using the ULTRON ES-OVM.

### Sitagliptin (oral hypoglycemic agent)



Column: ULTRON ES-OVM (5  $\mu$ m)  
 Column size: 150 mm L x 4.6 mm I.D.  
 Mobile phase: 20 mM  $\text{KH}_2\text{PO}_4$  + 20 mM  $\text{K}_2\text{HPO}_4$  (pH 6.8)/ $\text{CH}_3\text{CN}$  = 95/5  
 Flow rate: 1.0 mL/min

Column temp.: 25  
 Detection: UV-265 nm  
 Sample: 100 mg/L (in water)  
 Injection vol.: 10  $\mu$ L

#### Features of the ULTRON ES-OVM

1. Particularly effective for separation of chiral compounds.
2. Employs a highly denaturation resistant protein ligand\* (ovomucoid) as stationary phase.
3. Displays a wide range of chiral recognition.
4. No sample pretreatment required for chiral separations. (Blood plasma samples can be analyzed without pretreatment.)
5. Can be used for reversed-phase analyses.
6. Trace analyses possible (several nanograms).

\*Ligand: A substance that binds selectively with a specific receptor.



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## Analytical column specifications

Product name	Particle size (µm)	Column dimensions Length × I.D. (mm)
ULTRON ES-OVM	5	150 × 2.0
ULTRON ES-OVM	5	150 × 4.6
ULTRON ES-OVM	5	150 × 6.0
ULTRON ES-OVM-C	5	150 × 4.6
ULTRON ES-OVM	10	250 × 4.6
ULTRON ES-OVM Prep (preparative)	10	250 × 20.0
ULTRON ES-OVM-3	3	Contact us

## Guard column specifications

Product name	Particle size (µm)	Column dimensions Length × I.D. (mm)
ULTRON ES-OVM.G	5	10 × 4.0
ULTRON ES-OVM Prep.G (preparative guard column)	10	15 × 8.0
ULTRON ES-OVM (guard cartridges (x2))	5	5 × 2.0
Guard cartridge holder (with adaptor)	For 5 × 2.0 mm columns	
ULTRON ES-OVM (guard cartridges (x 2))	5	10 × 4.6
Guard cartridge holder (with adaptor)	For 10 × 4.6 mm columns	

### Protecting columns using guard columns

By using guard columns together with analytical columns, analytical columns can be protected from contamination, enabling longer column lifetimes. The use of guard columns is particularly recommended when analyzing samples containing large amounts of impurities.

Guard cartridges are also available when guard columns are changed frequently.

Please use guard columns with the same or smaller inner diameter than that of the analytical column being used.

### ULTRON ES-OVM-C

Clonidogrel bisulfate evaluation conditions based on USP standards employed for shipping inspections.  
(Performance reports included with columns.)



Please feel free to contact us with questions related to analyses. Column screening services are also available.

Please be aware that specifications and prices are subject to change without prior notification.