

# SHINWA EXPRESS

*Application*

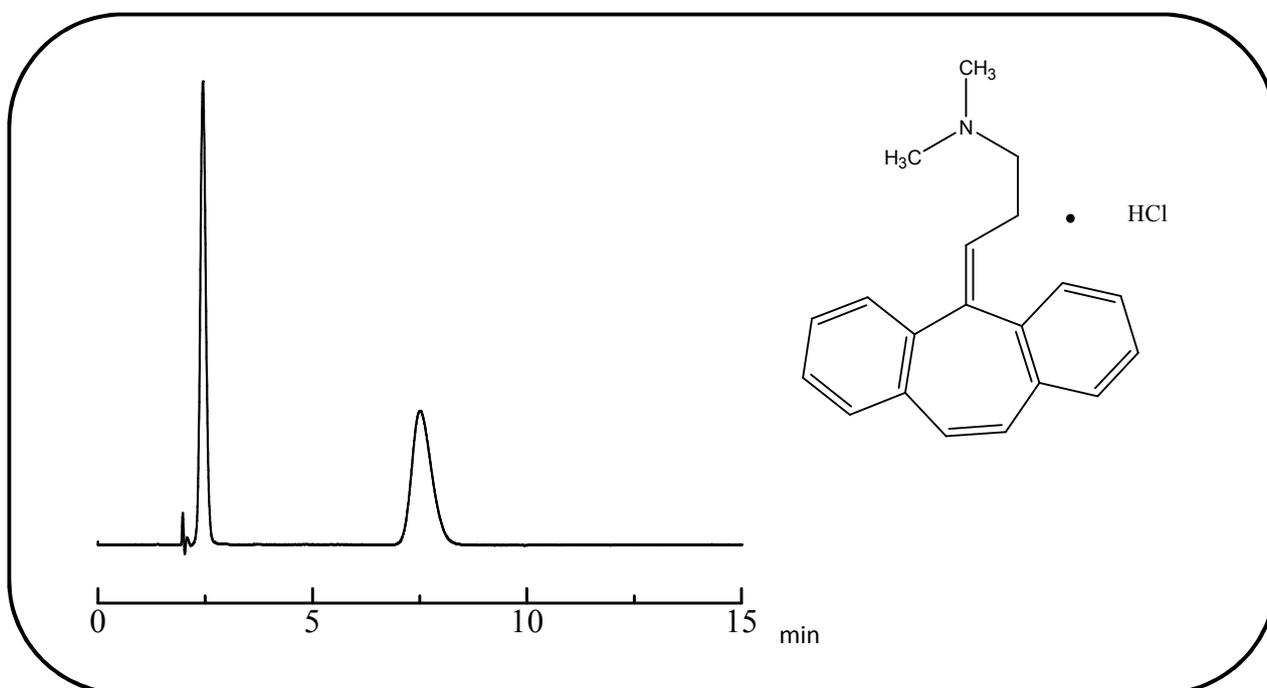
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## Analysis of cyclobenzaprine hydrochloride using the ULTRON ES-OVM

Shown below is a reversed-phase analysis of cyclobenzaprine hydrochloride, an antidepressant and muscle relaxant widely used around the world, performed using the ULTRON ES-OVM.

### Cyclobenzaprine hydrochloride (antidepressant, muscle relaxant)



Column:	ULTRON ES-OVM (5 $\mu$ m)	Column temp.:	25°C
Column size:	150 mm L x 4.6 mm I.D.	Detection:	UV-290 nm
Mobile phase:	20 mM KH <sub>2</sub> PO <sub>4</sub> + H <sub>3</sub> PO <sub>4</sub> (pH 3.0)/CH <sub>3</sub> CN = 90/10	Sample:	Cyclobenzaprine hydrochloride 200 mg/L in water
Flow rate:	1.0 mL/min	Injection vol.:	2 $\mu$ L

#### ● Features of the ULTRON ES-OVM

1. Particularly effective for separations of chiral compounds.
2. Employs a highly denaturation resistant protein ligand\* (ovomuroid) as a 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

## ■ 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 (new product)

Clopidogrel 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 and demonstration columns are also available.

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