

SHINWA EXPRESS

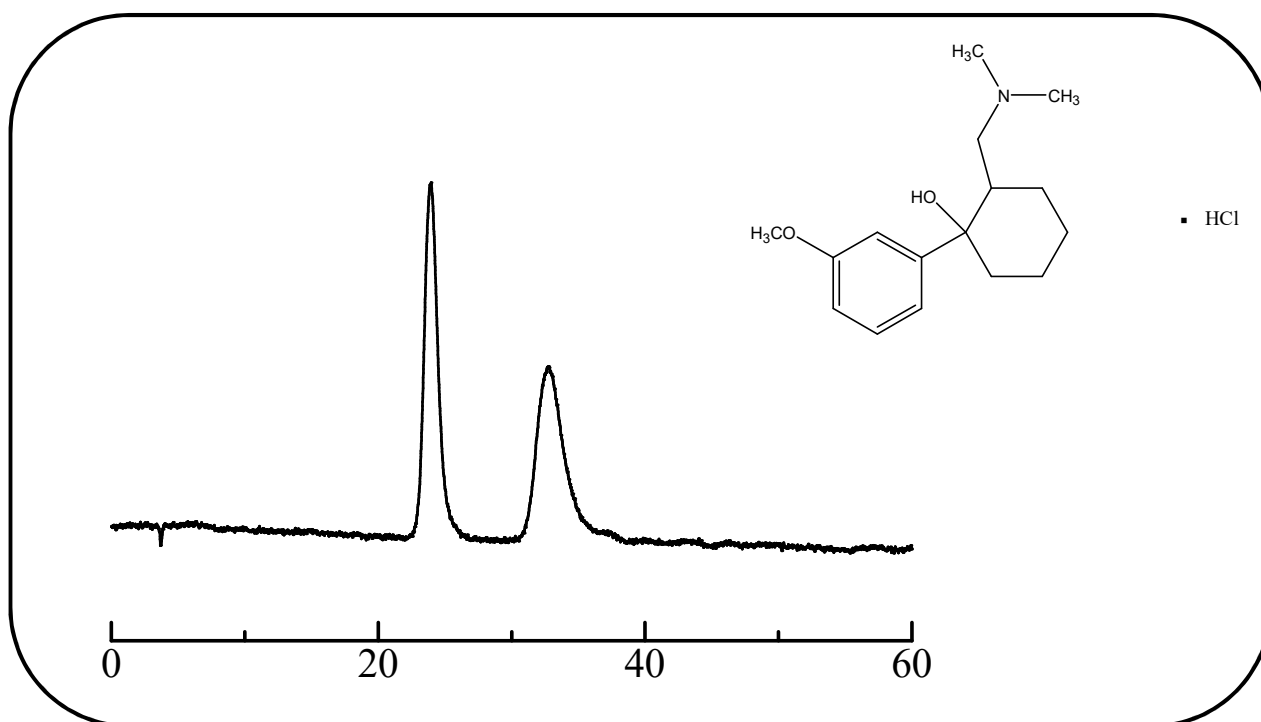
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Analysis of Tramadol hydrochloride using the ULTRON ES-PhCD-T

Tramadol hydrochloride is an opioid analgesic. Shown below is a reversed-phase analysis of Tramadol hydrochloride performed using the ULTRON ES-PhCD-T.

Tramadol hydrochloride (analgesic)



Column: ULTRON ES-PhCD-T (5 μ m)
Column size: 150 mm L x 6.0 mm I.D.
Mobile phase: 20 mM KH_2PO_4 (pH 6.0)/ CH_3CN = 70/30
Flow rate: 1.0 mL/min

Column temp.: 25°C
Detection: UV-270 nm
Sample: 200 mg/L (in mobile phase)
Injection vol.: 5 μ L

●Features of the ULTRON ES-PhCD-T

1. ULTRON ES-PhCD-T is an enantiomer separation column chemically bonded with phenylcarbamated β -cyclodextrin.
2. This column is effective for the enantiomer separation of hydrophobic cyclic compounds.
3. Mobile phase of both reverse-phase and normal phase modes can be used for separation.
4. This column show excellent stability and durability.

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■ Analytical column specifications ■

Product name	Particle size (μm)	Column dimensions Length × I.D. (mm)
ULTRON ES-PhCD	5	150 × 2.0
ULTRON ES-PhCD-T		150 × 6.0
ULTRON ES-CD		150 × 2.0
		150 × 6.0
ULTRON ES-CD-B		150 × 6.0

■ Guard column specifications ■

Product name	Particle size (µm)	Column dimensions Length × I.D. (mm)
ULTRON ES-PhCD.G	5	10 × 4.0
ULTRON ES-PhCD (guard cartridges (x2))		10 × 4.6
		5 × 2.0
ULTRON ES-CD.G		10 × 4.0
ULTRON ES-CD (guard cartridges (x2))		10 × 4.6
		5 × 2.0
Guard cartridge holder (with adaptor)	For 10 × 4.6 mm columns	
	For 5 × 2.0 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.



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.