

## Conditions

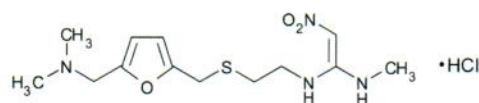
**Column:** ACE 3 C18  
**Dimensions:** 100 x 4.6 mm  
**Part Number:** ACE-111-1046  
**Mobile Phase:** A: 0.05 M  $\text{KH}_2\text{PO}_4$  pH 6.5 in  $\text{H}_2\text{O}/\text{MeCN}$  (98:2 v/v)  
 B:  $\text{H}_2\text{O}/\text{MeCN}$  (5:95 v/v)  
**Gradient:**

Time (mins)	%B
0	0
10	5
25	15
35	20
40	55
55	0

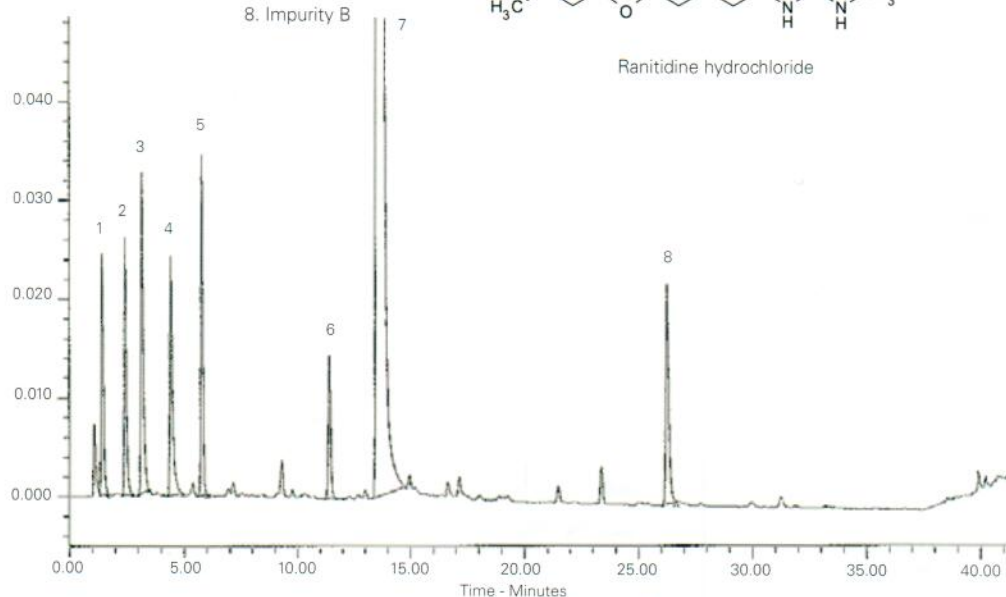
**Flow Rate:** 1 mL/min  
**Injection:** 40  $\mu\text{L}$   
**Temperature:** 40  $^\circ\text{C}$   
**Detection:** UV, 230 nm

## Analytes

1. Impurity F
2. Impurity E
3. Impurity D
4. Impurity A
5. Impurity C
6. Impurity G
7. Ranitidine
8. Impurity B



Ranitidine hydrochloride



Sharma N, Rao S, Kumar N, Reddy P, Reddy A (2011) A Validated Stability-Indicating Liquid-Chromatographic Method for Ranitidine Hydrochloride in Liquid Oral Dosage Form. *Sci Pharm*, 79, 309. doi:10.3797/scipharm.1101-06

Recombinant hGMCSF Purified from *Escherichia Coli*

Application #AN3840

## Conditions

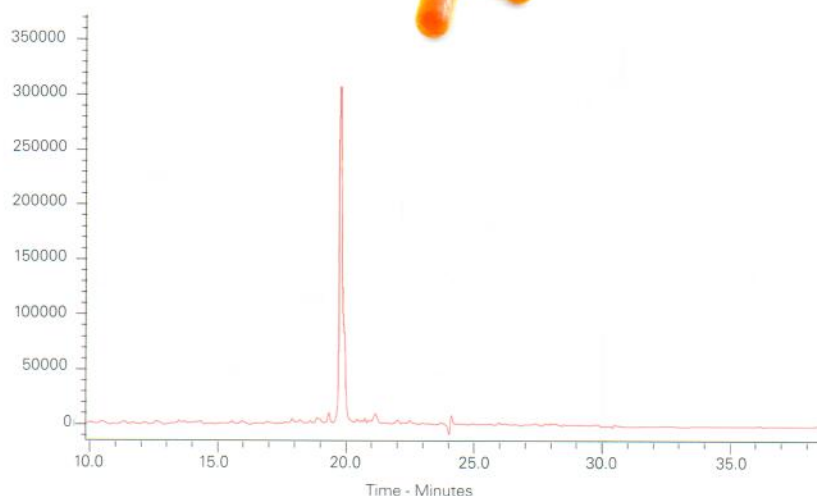
**Column:** ACE 5 C18  
**Dimensions:** 150 x 4.6 mm  
**Part Number:** ACE-121-1546  
**Mobile Phase:** A: 0.1% TFA in  $\text{H}_2\text{O}/\text{MeCN}$  (90:10 v/v)  
 B: 0.1% TFA in  $\text{H}_2\text{O}/\text{MeCN}$  (10:90 v/v)  
**Gradient:**

Time (mins)	%B
0	10
20	65
23	100

**Flow Rate:** 1 mL/min  
**Temperature:** 30  $^\circ\text{C}$   
**Detection:** UV, 215 nm



hGMCSF = human Granulocyte Macrophage Colony Stimulating Factor, a 127 amino acid residue cytokine with a molecular weight of 14,477 Da



Available from



**LCC Engineering & Trading GmbH**  
 Steinbruchstrasse 4, CH-4622 Egerkingen, Switzerland  
 Tel.: +41 62 398 5271, Fax.: +41 62 398 5274  
 info@chemsupply.ch  
 www.chromatographyshop.com

Das KMP, Banerjee S, Shekhar N, Damodaran K, Nair R, Somani S, Raiker VP, Jain S, Padmanabhan S. Cloning, Soluble Expression and Purification of High Yield Recombinant hGMCSF in *Escherichia coli*. *Int. J. Mol. Sci.* 2011, 12, 2064-2076; doi:10.3390/ijms12032064