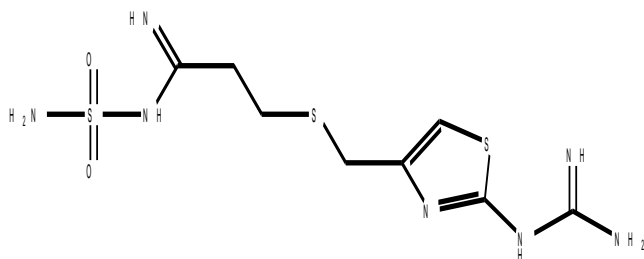


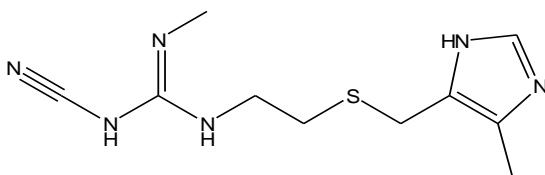
## 抗潰瘍剤 (H<sub>2</sub>ブロッカー)

## H<sub>2</sub> blockers

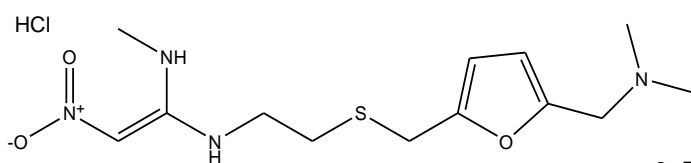
H<sub>2</sub> ブロッカーは胃粘膜性防壁に存在するヒスタミン H<sub>2</sub> 受容体へのヒスタミンの結合を阻害して、胃酸の分泌を抑制します。ここでは、CAPCELL PAK ADME-HR S5 (4.6 mm i.d. x 150 mm) 及び他社 ODS カラムを用いたファモチジン、シメチジン、ラニチジン、ニザチジン、ロキサチジン及びラフチジンの分析例を示します。



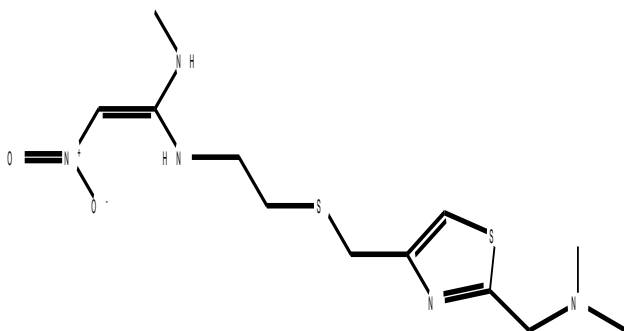
1. ファモチジン (150 µg/mL)  
Famotidine (M.W. 337.5)



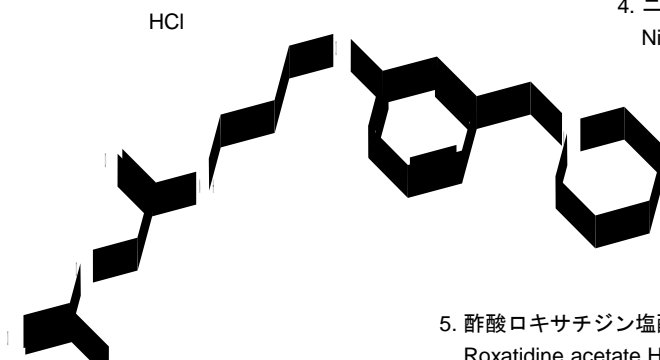
2. シメチジン (150 µg/mL)  
Cimetidine (M.W. 252.3)



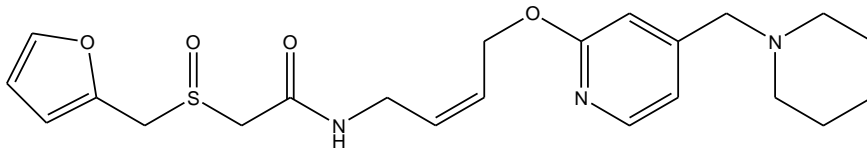
3. ラニチジン塩酸塩 (150 µg/mL)  
Ranitidine Hydrochloride (M.W. 350.9)



4. ニザチジン (150 µg/mL)  
Nizatidine (M.W. 331.5)



5. 酢酸ロキサチジン塩酸塩 (150 µg/mL)  
Roxatidine acetate Hydrochloride (M.W. 384.9)



6. ラフチジン (150 µg/mL)  
Lafutidine (M.W. 431.6)

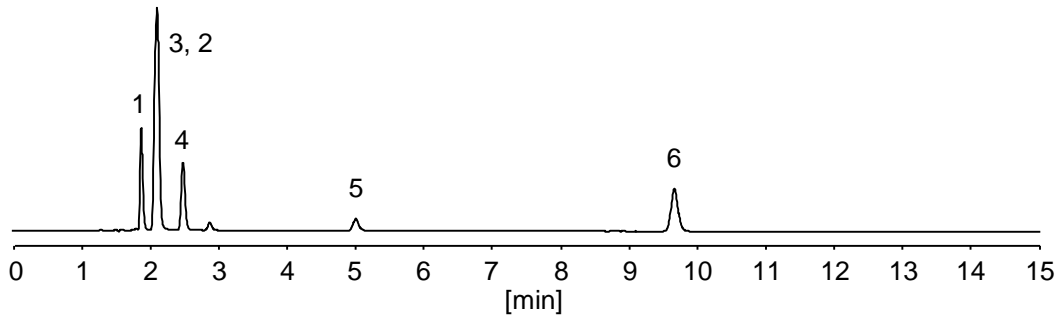
CAPCELL PAK ADME-HR



他社ハイブリッドODSカラム



他社ODSカラム



【HPLC Conditions】

- Column size : S5 ; 4.6 mm i.d. x 150 mm
- Mobile phase : A) 25 mmol/L Phosphate buffer ( $K_2HPO_4$  :  $KH_2PO_4$  = 1 : 1 in molar ratio)  
B)  $CH_3CN$   
B 25 % (0 min) -> 55 % (15 min) -> 25 % (15.1 min) Gradient
- Flow rate : 1 mL/min
- Temperature : 40 °C
- Detection : UV 230 nm
- Inj. vol. : 2 µL
- Sample dissolved in : Famotidine was dissolved in 10 vol% ethanol at 1 mg/mL.  
Cimetidine, Ranitidine Hydrochloride, Nizatidine and Roxatidine acetate Hydrochloride were separately dissolved in  $H_2O$  at 1mg/mL. Lafutidine was dissolved in methanol at 1mg/mL. 150 µL of each solution was mixed together. The mixture was diluted to 1mL by adding  $H_2O$ .
- ※ 1 µg/mL = 1 ppm