

## Conditions

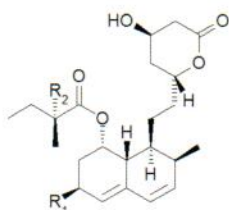
**Column:** ACE Excel 3 SuperC18  
**Dimensions:** 100 x 3.0 mm  
**Part Number:** EXL-1111-1003U  
**Mobile Phase:** A: 5 mM ammonium acetate pH 4.5 in H<sub>2</sub>O  
 B: MeCN  
**Gradient:**

Time (mins)	%B
0	65
4	65
5	75
7	75
8	65

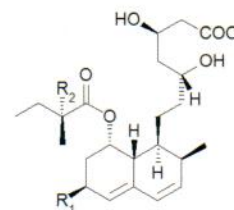
**Flow Rate:** 0.3 mL/min  
**Temperature:** 40 °C  
**Detection:** Quattro Ultima triple quad MS  
 ESI MRM mode: +ve (lactones)  
 -ve (hydroxy acids)  
 Source temperature: 125 °C  
 Desolvation temperature: 350 °C

## Analytes

1. Lactone form (pharmacologically inactive)
2. Hydroxy acid form (pharmacologically active)



Lactone form  
(pharmacologically inactive)

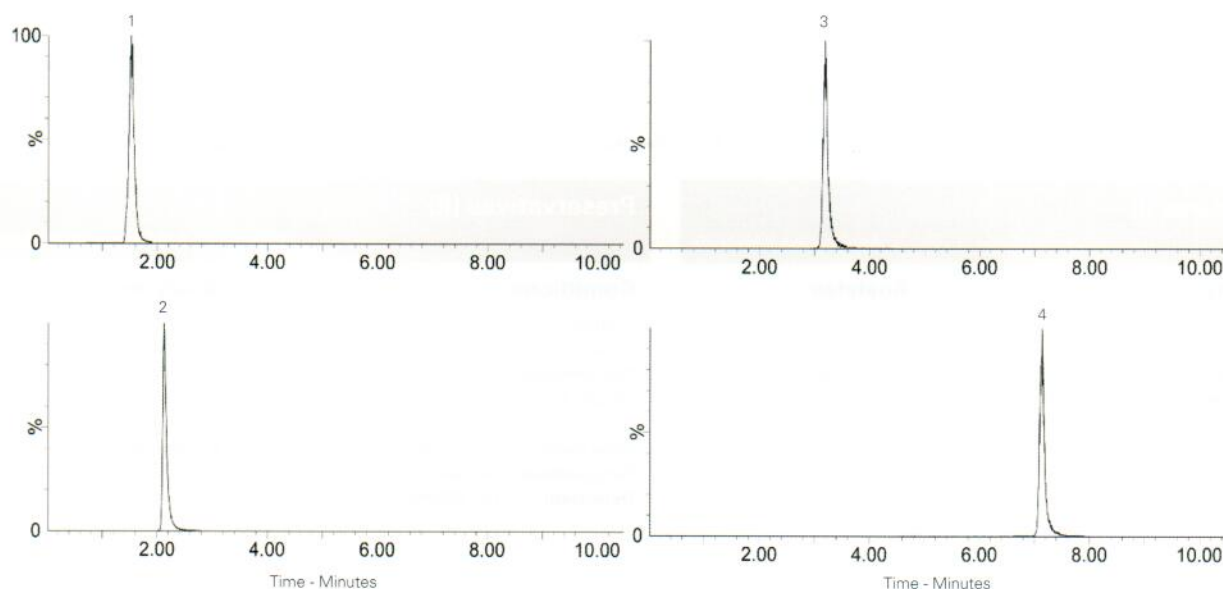


Hydroxy acid form  
(pharmacologically active)

Peak	Analyte	Precursor ion	MRM transition ( <i>m/z</i> )	LLOQ (ng/mL)
1	Pravastatin hydroxy acid	[M-H] <sup>-</sup>	423.23 → 321.37	2.23
2	Pravastatin lactone	[M+H] <sup>+</sup>	407.46 → 183.22	2.03
3	Lovastatin hydroxy acid (IS)	[M-H] <sup>-</sup>	421.08 → 319.54	n/a
4	Lovastatin lactone (IS)	[M+Na] <sup>+</sup>	427.15 → 325.36	n/a

Pravastatin: R<sub>1</sub> = OH, R<sub>2</sub> = H

Lovastatin (IS): R<sub>1</sub> = CH<sub>3</sub>, R<sub>2</sub> = H



Taha DA, de Moor CH, Barrett DA, Lee JB, Gandhi RD, Hoo CW, Gershkovich P. (2016) The role of acid-base imbalance in statin-induced myotoxicity. Translational Research, The Journal of Laboratory and Clinical Medicine. <http://dx.doi.org/10.1016/j.trsl.2016.03.015>

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