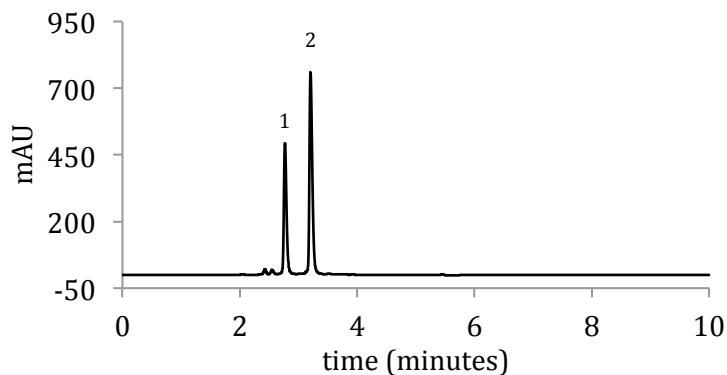


**FLARE C18 MM Column: Separation of Avermectin B1a and Doramectin (Insecticides)**

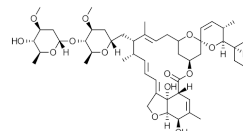
**HPLC Conditions**

|                           |  |    |     |
|---------------------------|--|----|-----|
| <b>Column Name:</b>       | FLARE C18 MM   |    |     |
| <b>Column Dimensions:</b> | 4.6 x 50 mm (15698-14-2 TB)  |    |     |
| <b>HPLC System:</b>       | Agilent 1200   |    |     |
| <b>Injection Volume:</b>  | 1.0 µl   |    |     |
| <b>Detection:</b>         | UV at 244 nm   |    |     |
| <b>Flow Rate:</b>         | 1.0 ml/min   |    |     |
| <b>Solvents:</b>          | A: 200 ml ACN, 150 ml MeOH, 650 ml H <sub>2</sub> O<br>B: 500 ml ACN, 400 ml MeOH, 100 ml H <sub>2</sub> O |    |     |
| <b>Gradient:</b>          | Time (mins)  | %A | %B  |
|                           | 0.00   | 80 | 20  |
|                           | 5.00   | 20 | 80  |
|                           | 5.01   | 80 | 20  |
|                           | 10.00  | 80 | 20  |
|                           |  |    | end |
| <b>Temperature:</b>       | 35 °C  |    |     |

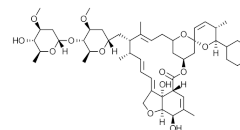
**Analytes:**



1. Avermectin B1a



2. Doramectin



**Notes**

Avermectins have high anthelmintic and insecticidal properties. Residues of these veterinary drug components may reach the environment through manufacturing and animal waste and may potentially affect terrestrial and aquatic organisms. There is, therefore, a need of analytical methods capable of determining residues in food and environment. The presented HPLC method is fast and efficient and can be used for residual analysis as well as for quality control in drug formulations.

**References**

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2. Awasthi et al., Evaluation of Degradation Kinetics for Abamectin in Formulations using a Stability Indicating Method. *Acta Phar.* 2013, 63, 59-69
3. Pitterna et. al, New Ventures in the Chemistry of Avermectins, *Bio. & Med. Chem.* 2009, 17, 4085–4095

Acknowledgement: David A. Hunt, Syngenta

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