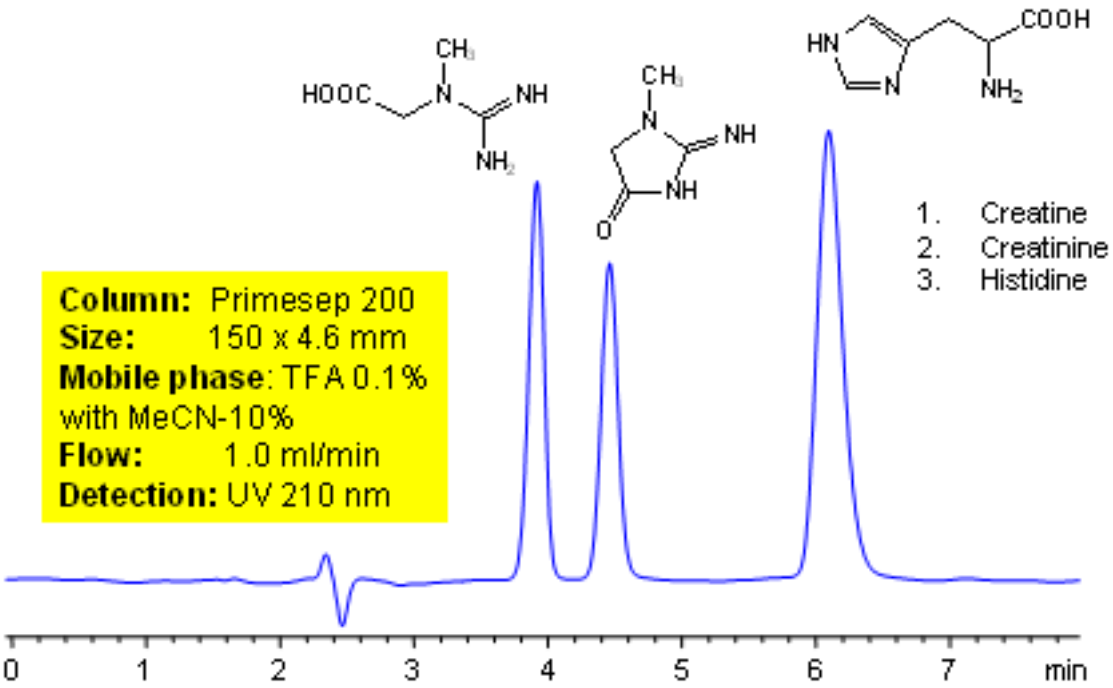
HPLC Separation of Creatine, Creatinine and Histidine



Creatine is produced by the body and plays a major role in recycling ATP. It also stabilizes pH in certain tissues. Creatine can be analyzed by this reverse phase (RP) HPLC method with simple conditions. The mobile phase contains acetonitrile (MeCN), water, and TFA. For Mass-Spec (MS) compatible applications the phosphoric acid needs to be replaced with formic acid. Smaller 3 µm particle columns are available for fast UPLC applications. This liquid chromatography method is scalable and can be used for isolation of impurities in preparative separation. It also suitable for pharmacokinetics.

Method Parameters

Column	Primesep 200, 4.6×150 mm, 5 µm, 100 Å
Mobile Phase	MeCN/H2O – 10/90%
Buffer	TFA -0.1%
Flow Rate	1.0 mL/min
Detection	UV, 210 nm

Quelle: https://sielc.com/Application-HPLC-Separation-of-Creatine-Creatinine-and-Histidine