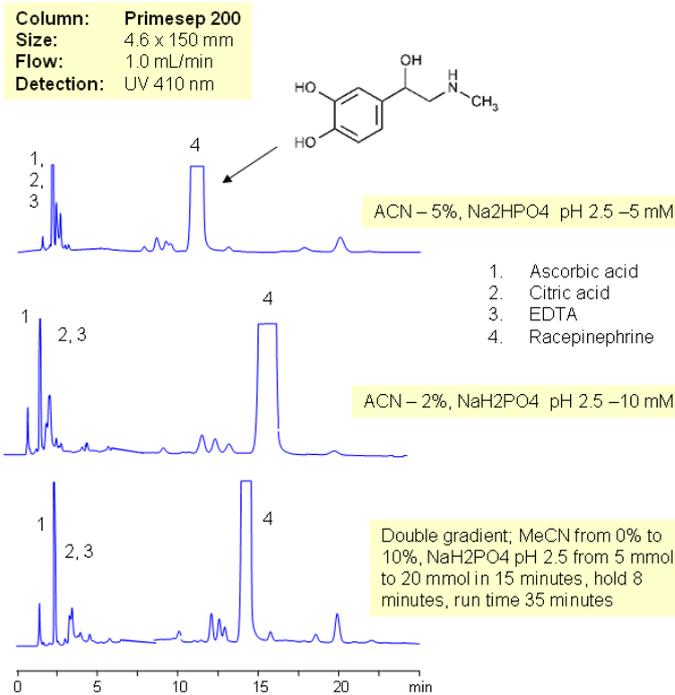


HPLC Separation of Epinephrine and Related Impurities



Epinephrine (also referred to as adrenaline) is a hormone and neurotransmitter. It is a catecholamine, a sympathomimetic monoamine derived from the amino acids phenylalanine and tyrosine. Epinephrine is polar basic compounds and it is retained on mixed-mode cation exchange columns without ion-pairing reagent. Epinephrine is retained by weak reversed phase and strong cation-exchange mechanisms. Formulations for epinephrine might have citric and ascorbic acid and EDTA. These three compounds are not retained by cation-exchange or reversed-phase mechanisms and elute in the void. Current HPLC method can be used for quantitation of epinephrine and racepinephrine (recemate) in various compositions. Epinephrine and related impurity can be monitored by UV, ELCD/MS, ELSD or Corona CAD. Corresponding buffer is required for each detection technique.

Method Parameters

Column	Primesep 200, 4.6x150 mm, 5 µm, 100 Å
Mobile Phase	MeCN/H ₂ O
Buffer	NaH ₂ PO ₄
Flow Rate	1.0 mL/min
Detection	410

Quelle: <https://sielc.com/Application-HPLC-Separation-of-Epinephrine-and-Related-Impurities>