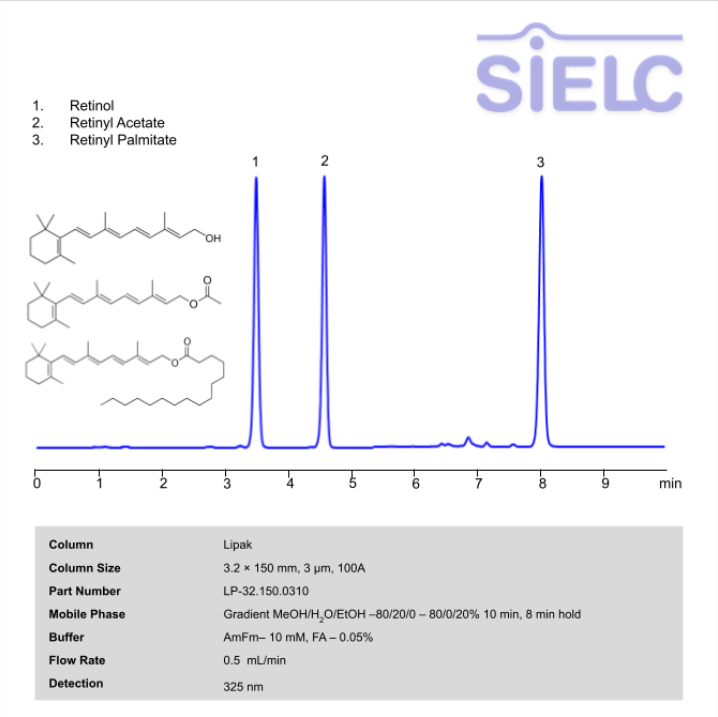
HPLC Method for Analysis of Retinol and Synthetic Derivatives Analysis on Lipak Column



Retinol , also known as vitamin A1 , with the chemical formula C20H30O . It is primarily taken as a daily supplement for a variety of purposes including but not limited to upkeep of skin, improvement of immune functions, and reproductive development. You can find detailed UV spectra of Retinol and information about its various lambda maxima by visiting the following link.

Retinyl Acetate is a synthetic retinyl ester with the chemical formula C22H32O2 . It has a variety of uses in dietary supplements and cosmetic products. It is more stable against heat, oxygen and light compared to regular Retinol. You can find detailed UV spectra of Retinyl Acetate and information about its various lambda maxima by visiting the following link.

Retinyl Palmitate is an ester of Vitamin A and Palmitic Acid with the chemical formula C36H60O2 . It is the most prescribed version of Vitamin A supplements and is used primarily to treat Vitamin A deficiency. It is also added to low-fat milk and other dairy products as a substitute to the vitamins lost during fat removal. You can find detailed UV spectra of Retinyl Palmitate and information about its various lambda maxima by visiting the following link.

and its synthetic derivatives are widely studied for their impact on skin health, cellular regeneration, and their role in treating various skin conditions like acne, wrinkles, and hyperpigmentation.

Retinol (Vitamin A) , Retinol acetate , Retinol palmitate can be retained, and analyzed using a Lipak mixed-mode stationary phase column. The analysis utilizes an gradient method with a mobile phase consisting of water, methanol (MeOH), Ethanol (EtOH), ammonium formate and formic acid as a buffer. Detection is achieved using 325 nm

AugustaChrom - Dr. Roland Kießwetter
Tel.: +49 821 599 783 70
Fax: +49 821 599 783 71
E-Mail: info@hplc-shop.de

Method Parameters

Column	Lipak, 3.2 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	Gradient MeOH/H2O/EtOH –80/20/0 – 80/0/20% 10 min, 8 min hold
Buffer	AmFm– 10 mM, FA – 0.05%
Flow Rate	0.5 mL/min
Detection	325 nm

Quelle: https://sielc.com/hplc-method-for-analysis-retinoids