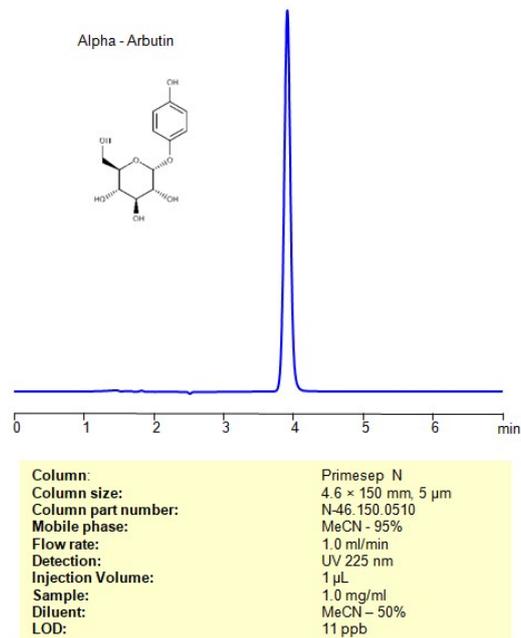


## HPLC Method for Analysis of Alpha – Arbutin on Primesep N Column



Separation type: Liquid Chromatography Mixed-mode SIELC Technologies

Alpha-arbutin is a naturally occurring compound found in certain plants, particularly in the bearberry (*Arctostaphylos uva-ursi*) plant, cranberries, blueberries, and pears. It is a glycoside derivative of hydroquinone, which means it has a glucose molecule attached to a hydroquinone molecule.

**Skin Lightening:** Alpha-arbutin is known for its skin-lightening properties. It is often used in skincare products to reduce the appearance of hyperpigmentation, such as dark spots and age spots.

**Inhibition of Tyrosinase:** Alpha-arbutin works by inhibiting the activity of the enzyme tyrosinase, which is involved in the production of melanin (the pigment responsible for skin color). By inhibiting tyrosinase, alpha-arbutin helps to reduce melanin production and, consequently, lighten the skin.

**Cosmetic Products:** Alpha-arbutin is commonly used as an ingredient in various skincare and cosmetic products, such as creams, serums, and lotions, aimed at promoting even skin tone and reducing the appearance of dark spots.

It's essential to note that while alpha-arbutin is generally considered safe for topical use, individuals with sensitive skin or those undergoing specific skincare treatments should consult with a dermatologist or healthcare professional before using products containing this ingredient.

Alpha – Arbutin can be retained and analyzed using a Primesep N mixed-mode stationary phase column. The analysis employs an isocratic method with a simple mobile phase comprising water, acetonitrile (MeCN). This method allows for detection using UV at 225 nm

## Method Parameters

<b>Column</b>	Primesep N, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
<b>Mobile Phase</b>	MeCN95%
<b>Buffer</b>	None
<b>Flow Rate</b>	0.2 mL/min
<b>Detection</b>	UV 225 nm
<b>Injection Volume</b>	1 µl

Quelle: <https://sielc.com/hplc-ms-method-for-analysis-alpha-arbutin>