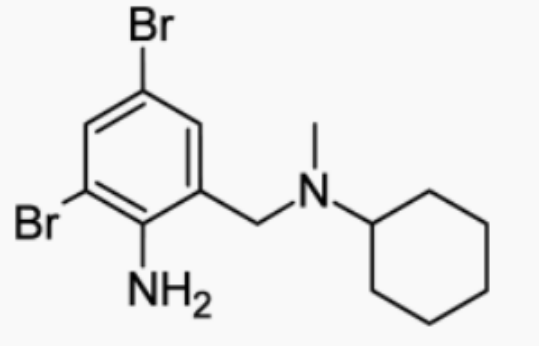
Developing a Bromhexine HPLC method – Tips & Suggestions

I am currently using the following method for analysis of bromhexine. Which column and / or alternative method conditions can you suggest?

Mobile phase: 20:80 Potassium di-hydrogen phosphate buffer *(Potassium di-hydrogen phosphate 1.0g, add 900ml DI water, then change pH to 7.0 with 0.5mol / L NaOH solution and dilution it to 1000ml with DI water*) / acetonitrile
Column temperature: 40°C
Detection: UV @ 245nm



Bromhexine Structure

Suggestion: Try using a Cogent Bidentate C18™ Column. The compound should be adequately retained under Reversed Phase conditions. Instead of the phosphate buffer, consider using an acidic additive such as 0.1% formic acid. The pH 7 conditions used here may not be ideal for optimum peak shape of this compound.

In addition, phosphate buffers are not LCMS compatible, thereby limiting the scope of the method. Also phosphate buffers have been known to permanently alter the selectivity of HPLC columns. The mobile phase will also be simpler to prepare with an acid additive.

Cogent Bidentate C18 Ordering Information

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