

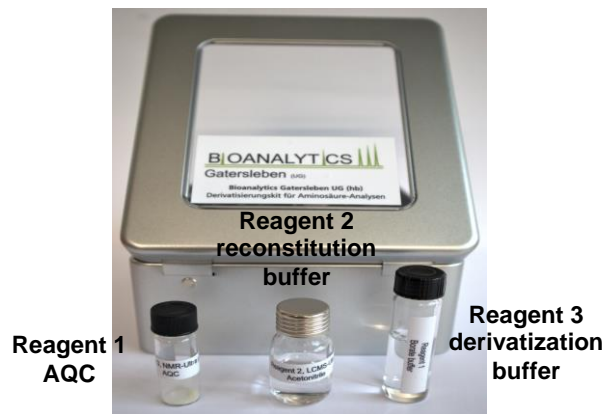
Bioanalytics Gatersleben

Instruction for Derivatization Kit for primary and secondary amino acids

Introduction

Derivatization kit of the company Bioanalytics Gatersleben consists of three different reagents of which the fluorescing powder is the most important. The 6-aminoquinolyl-N-hydroxysuccinimidyl carbamate (AQC) is a highly fluorescent compound that spontaneously reacts with primary and secondary amino acids as well as with peptide and protein hydrolysate to form highly stable, fluorescent derivatives. The excess reagent reacts with water to form free amines.

The kit from Bioanalytics Gatersleben (below) contains reagent 1 with the fluorescent dye (AQC) for derivatization, reagent 2 for reconstitution of AQC and reagent 3 with the corresponding buffer for derivatization.



The pure AQC is synthesized in cooperation with a neighboring company and certified by NMR analysis to ensure the lowest level of contamination.

The derivatisation kit should be stored in a dark, dry environment at room temperature.

Preparation of reagent kit

1. Use a heating shaker with 55°C
2. Add 1 ml of reagent 2 (reconstitution buffer) to the vial 1, reagent 1 (AQC) and mix the content carefully for 15 seconds
3. Incubate the vial for exactly 10 minutes at 55°C while shaking slowly (300 rpm)
4. Cool down after 10 minutes and use the content for derivatization of standards and samples. **Be aware that the whole powder must be dissolved and the solution is clear.**

Derivatization of standards and samples

1. Prepare different standard mixtures with desired concentrations.
2. Use clean tips to pipette samples and standard solutions into 1.5 ml Eppendorf tubes.
3. Prepare a final volume of 200 µL. Add 140 µL of reagent 3 (derivatization buffer) to the tubes and 20 µL of standard mixture or prepared extracts. Add 40 µL of reconstituted reagent (reagent 1) to each tube.
4. Mix all carefully and incubate the tubes **exactly** for 10 minutes at 55°C.
5. Cool down and use 1 to 10 µL for U(H)PLC analysis.
6. Derivatized samples can be stored up to two weeks at 4°C and up to four weeks at -20°C.