Fluorescamine

**Ordering Information**

<table>
<thead>
<tr>
<th>Product Number: 820 (25 mg)</th>
<th>Storage Conditions</th>
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<tbody>
<tr>
<td></td>
<td>Store desiccated at -20 °C</td>
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<td>Expiration date is 12 months from the date of receipt</td>
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**Chemical Properties**

Molecular Weight: 278.26  
Appearance: white powder  
Solvents: dimethylsulfoxide (DMSO) or dimethylformamide (DMF)  
Spectral Properties: Fluorescamine has absorption maximum at 234 nm with EC = 28,000 cm$^{-1}$M$^{-1}$ in MeCN, and has no fluorescence. The adducts of fluorescamine with small amines (e.g., butylamine) have fluorescence quantum yield and lifetime ~0.23 and ~7.5 nanoseconds (in EtOH) respectively.

*Note: Fluorescamine reacts with water and many other aqueous buffers. Please do not make buffer stock solutions. It's recommended to prepare the stock solutions in anhydrous DMF or DMSO.*

**Biological Applications**

Fluorescamine is intrinsically nonfluorescent but reacts rapidly with primary aliphatic amines, including those in peptides and proteins, to yield a blue-green fluorescent derivative as shown above. The above reaction allows fluorescamine to be used to sensitively detect amino acids, peptides, proteins and other amino-containing molecules. Excess reagent is rapidly converted to a nonfluorescent product by reaction with water, making fluorescamine useful for determining protein concentrations of solutions.

This amine-reactive reagent has been shown to be useful for determining protein concentrations of aqueous solutions and for measuring the number of accessible lysine residues in proteins. Protein quantitation with fluorescamine is particularly well suited to a minifluorometer or fluorescence microplate reader. Fluorescamine can also be used to detect proteins in gels and to analyze low molecular weight amines by TLC, HPLC and capillary electrophoresis.
Besides its use for solution quantitation of proteins and peptides, fluorescamine is also useful as a peptide and protein detection reagent for capillary electrophoresis. Use of fluorescamine to derivatize a standard protein of known molecular weight together with another fluorescent reagent to derivatize the sample protein allows the sample to be run simultaneously with the standard, improving the accuracy of molecular weight determination.

References

Disclaimer: This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact our technical service representative for more information.