



CERTIFICATE OF ANALYSIS

Product **TEXAS RED[®] MALEIMIDE**

Catalog No. SP-1505

Amount 3.6 mg

Lot No. ZF0916

Storage -20 °C to -80 °C.

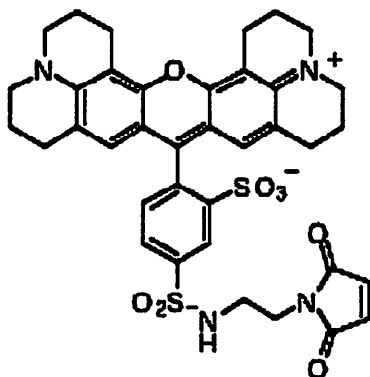
Empirical formula $C_{37}H_{36}N_4O_8S_2$

MW 728

λ_{ex} 592nm

λ_{em} 614nm

Structure:



Texas Red[®] Maleimide is designed for fluorescent labeling of proteins¹, nucleic acids or other molecules containing one or more thiol groups. Molecules to be labeled with Texas Red[®] Maleimide require free thiol groups. In the case of proteins, Texas Red[®] Maleimide will react with exposed cysteine residues. Alternatively, free thiols may be generated by reducing disulfide bonds or by modifying other reactive groups such as primary amines with compounds like Traut's reagent (2-iminothiolane). Once free thiol groups are available, labeling can be carried out as outlined below. For labeling nucleic acids, thiols can be introduced into using the 5' EndTag[™] or 3' EndTag[™] nucleic acid labeling systems.

(see instructions for use and references on the reverse side)

Labeling Procedure: Texas Red® Maleimide, Cat. No. SP-1505

5' EndTag™ or 3' EndTag™ labeling of nucleic acids:

Dissolve Texas Red Maleimide with 500 µl of anhydrous dimethyl sulfoxide (DMSO) and store at -20°C to -80°C in the dark.

Follow the labeling procedure included with the 5' EndTag or 3' EndTag systems.

Protein labeling procedure:

1. Dissolve the protein to be labeled in 0.1 M phosphate buffer, 5 mM EDTA, pH 7, at a concentration of 5 mg/ml.
2. Dissolve a slight excess of the Texas Red Maleimide needed in dimethyl sulfoxide (DMSO) at 20 mg/ml.
3. Add 25 µl Texas Red Maleimide per ml of protein solution.
4. Incubate at room temperature for 3 hours with occasional stirring.
5. Separate the unreacted material from the protein by gel filtration or dialysis.

References:

¹Deziel, M.R. and Mau, M.M. 1990. Biotin-conjugated reagents as site-specific probes of membrane protein structure: application to the study of the human erythrocyte hexose transporter. *Anal. Biochem.* 190:297-303

²Sambrook, J., Fritsch, E.F., and Maniatis, T. 1989. *Molecular Cloning: A Laboratory Manual*. 2nd ed., Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y

Selected reagents for the detection of the Texas Red label:

Goat Anti-Rhodamine*, Biotinylated	BA-0605	0.5 mg
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*Binds most rhodamines including Texas Red.