VECTOR LABORATORIES

# CERTIFICATE OF ANALYSIS

Product **FLUORESCEIN MALEIMIDE**

Catalog No. SP-1502

Amount 12 mg

Lot No. ZF1218

Storage -25 to -15 °C

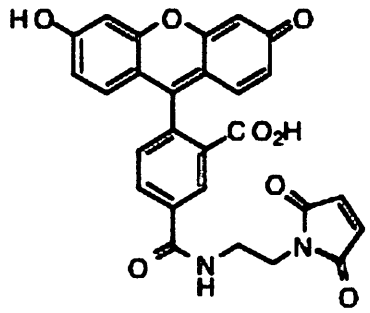
Empirical formula $C_{27}H_{18}N_2O_8$

FW 498.4

$\lambda_{ex}$ 492nm

$\lambda_{em}$ 520nm

Structure:




Fluorescein Maleimide is designed for fluoresceinating proteins[1], nucleic acids or other molecules containing one or more thiol groups. Molecules to be labeled with Fluorescein Maleimide require free thiol groups. In the case of proteins, Fluorescein 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 using the 5' EndTag™ or 3' EndTag™_nucleic acid labeling systems.

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

Vector Laboratories, Inc., 30 Ingold Road, Burlingame, CA 94010 U.S.A.
Tel: (650)697-3600 • Fax: (650)697-0339 • Email: vector@vectorlabs.com • Web: www.vectorlabs.com

VECTOR LABORATORIES

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# Labeling Procedure: Fluorescein Maleimide, Cat. No. SP-1502

## 3' EndTag™ labeling of nucleic acids:

Dissolve Fluorescein 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 3' EndTag™ system

## 5' EndTag™ labeling of nucleic acids:

Dissolve Fluorescein Maleimide with 883 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 system.

## Protein labeling procedure:

1. Dissolve the protein to be labeled in 100 mM phosphate buffer, pH 7.0 at a concentration of 5 mg/ml.
2. Dissolve a slight excess of the amount needed of Fluorescein Maleimide in dimethyl Sulfoxide (DMSO) at a concentration of 20 mg/ml.
3. Add 25 µl Fluorescein 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:

[1]Deziel, 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

## Selected reagents for the detection of the fluorescein label:

| | | |
|---|---|---|
| Goat Anti-Fluorescein, Biotinylated | BA-0601 | 0.5 mg |

Aug. 2019



30 Ingold Road, Burlingame, CA 94010 | 650.697.3600 p | 650.697.0339 f | vectorlabs.com