

92001 Ampliflu Red "easy to use" Kit

Content

- 90101 Ampliflu Red (10 x 1mg)
- 41640 DMSO (5 ml)
- Technical information sheet

Product Details

Molecular weight (Ampliflu Red): $M=257.24$ g/mol

Spectral data (Resorufin): $\lambda_{ex} = 571$ nm / $\lambda_{em} = 585$ nm

Description

The Ampliflu Red "easy to use" Kit provides Ampliflu Red in 1 mg portions, and the solvent DMSO, for an easy generation of Ampliflu Red stock solutions.

Ampliflu Red is a peroxidase substrate that can be enzymatically converted to the highly fluorescent compound resorufin, which has an excitation maximum at 571 nm and an emission maximum at 585 nm. Fluorescence detection can be performed on a fluorescence spectrophotometer, or by illumination on a laser-scanner (e.g. Fuji® FLA-3000, with 532 nm excitation and 580 nm emission filter). Other imaging systems are possible with similar excitation sources and emission filter settings. The excitation band of resorufin is rather broad, and effective excitation is possible at wavelengths well below $\lambda_{ex,max}$ (see fig.1).

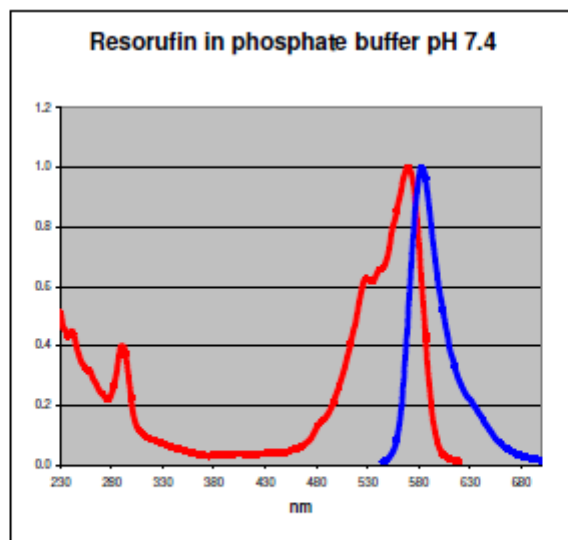


Figure 1. Normalized fluorescence excitation (red, measured at $\lambda_{em}=585$ nm) and emission spectra (blue, measured at $\lambda_{ex}=571$ nm) of resorufin in phosphate buffer pH 7.4

Preparation

1. Dissolve 1 mg Ampliflu Red in 388.7 μ l DMSO to obtain a slightly red 10mM stock solution
2. note: DMSO is only fluid above 18.55 °C
3. Try to minimize the exposure to light



Applications

Ampliflu Red may be used for various chemifluorescent experiments, where a luminescent readout has to be generated by the action of the peroxidase enzyme. This can be the case for HRP-labeled secondary antibodies in invitro applications, e.g. on Western blot membranes, or in solution. One example for the use of Ampliflu Red in a Western blot application is shown in fig.2.

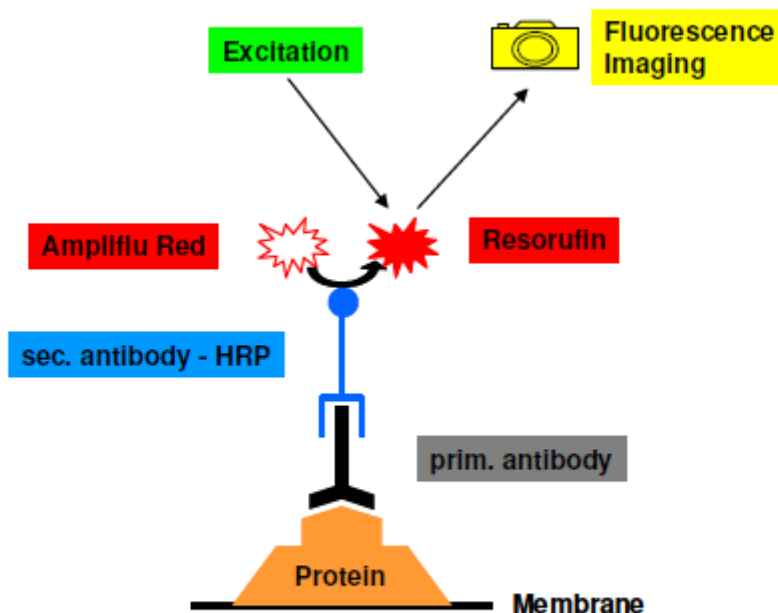


Figure 2. Schematic overview for the use of Ampliflu Red. A protein is immobilized by Western blot transfer after SDS-PAGE. The protein is bound with a primary antibody and followed by a secondary antibody carrying a horseradish peroxidase (HRP) label. The membrane is incubated in a solution containing Ampliflu Red and hydrogen peroxide. Ampliflu Red is converted into resorufin by the action of HRP. The resultant fluorescent signal can be detected with excitation at 571 nm and emission at 585 nm.

Storage / Handling

Please store kit at room temperature. After dissolution in DMSO, Ampliflu Red should be stored at 4 °C in the dark.

After that, it should be used up within 1 month. Do not expose to light unnecessarily.

Related Products

Cat. No.	Description	Package size
79454	Ampliflu Red Western Blot Kit	1 ea
05317	Immobilon™-FL PVDF membrane	10 ea
A0545	Goat anti-rabbit IgG-Peroxidase	1 ml
A9044	Rabbit anti-mouse IgG-Peroxidase	2 ml
95321	H ₂ O ₂	100 / 500 ml

Precautions and Disclaimer:

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

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