
LS 510 Free Acid

Cat. No.: L1511496 | Pack size: 1 mg, 5 mg | Storage: Protected from light, Store at -20°C

Overview

LS 510 Free Acid is a high-performance fluorescent labeling dye featuring a unique long Stokes shift. With an excitation wavelength of 509 nm and an emission wavelength of 590 nm, its large spectral separation effectively reduces overlap between excitation and emission light, thus minimizing spectral crosstalk at the source. This product is designed to address the insufficient detection accuracy caused by spectral overlap of conventional fluorescent dyes in multiplex experiments. It offers excellent solubility and enhanced signal discrimination in multi-channel labeling due to its long Stokes shift. It also provides balanced performance in fluorescence stability and biocompatibility, meeting the core requirements for precise labeling.

As a widely used reagent in immunofluorescence assays, LS 510 Free Acid is suitable for cytoskeleton dynamics imaging, immunohistochemistry, fluorescence in situ hybridization, and other multi-labeling applications. It is especially ideal for the analysis of complex samples requiring simultaneous detection of multiple targets. Its long Stokes shift effectively eliminates signal overlap and interference between detection channels, improving the accuracy of multi-target detection.

Note: Performance is equivalent to Dyomics DY-510XL.

Applications

Cytoskeleton dynamics imaging; Immunohistochemistry; Fluorescence in situ hybridization (FISH); Multi-target complex sample analysis; Immunofluorescence.

Product Features

1. High brightness: Strong emission intensity, brighter than FITC, with higher sensitivity.
2. Excellent photostability: High resistance to photobleaching, ensuring reliable quantitative data and stable results.
3. Buffer stability: The conjugated fluorophore remains fully stable in the pH range of 4 to 9.
4. Low photobleaching and channel crosstalk: Ex/Em: 509/590 nm; long Stokes shift with an Ex-Em gap of 81 nm.
5. Instrument compatibility: Excitation and emission spectra match filter sets and laser configurations of all major fluorescence detection instruments.

Product Parameters

1. Ex/Em: 509/590 nm.
2. Extinction Coefficient (ϵ): 50000.
3. Molecular Weight: 605.14.
4. Solubility: Soluble in water, DMSO, DMF.
5. Spectrum:

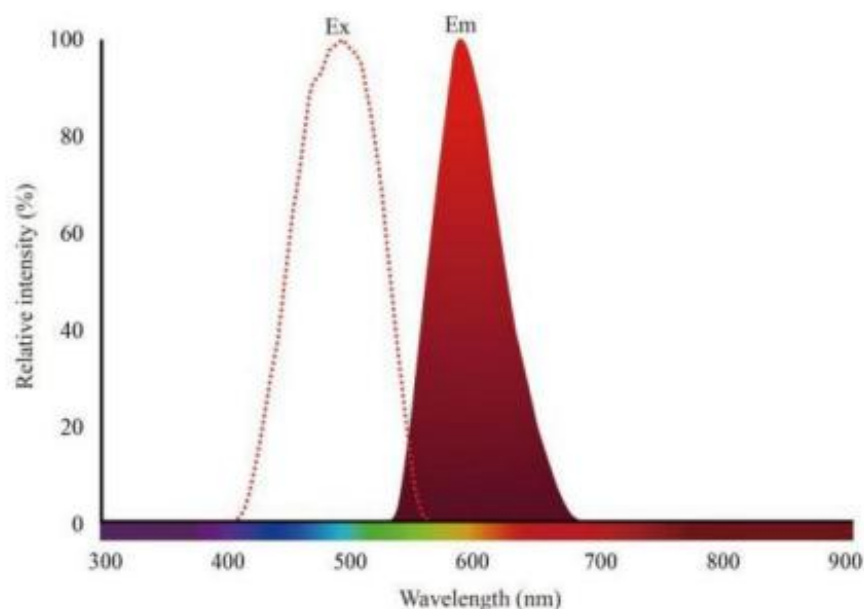


Figure 1. Spectrum of LS 510 Free Acid.

Precautions

1. This product is soluble in DMSO, DMF, and water. Excitation and emission wavelengths may vary slightly in different solvents.
2. Mix thoroughly before use and avoid repeated freeze-thaw cycles. Upon first use, aliquot the product into small tubes and store at -20 °C.
3. Fluorescent dyes are prone to photobleaching; always protect from light during handling to maintain stability.
4. This product is for research use only and must not be stored in residential areas.
5. For your safety and health, please follow the standard laboratory safety regulations of your institution.

Specifications

| Attribute | Value |
|-------------------------|---|
| Synonyms | LS510 free acid |
| Specifications & Purity | BioReagent, Biological Stain, for fluorescence analysis, for microscopy, sterile, Suitable for Immunohistochemistry (IHC), Suitable for Immunofluorescence (IF) |
| Stability And Storage | Store at -20 °C long term (60 months). Store in the dark. Storage Conditions Protected from light, Store at -20°C |
| Shipped In | Ice chest + Ice pads This product requires cold chain shipping. Ground and other economy services are not available. |

Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, the North American office is the corporate primary.

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- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.
- Where any kit component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.



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Product Instructions
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