

# Product Information

## YF633 free acid

Catalog Number: YH0001

Product Size: 5 mg

Application Scope: Fluorescent dye

## Parameters

Ex/Em: 630/650 nm

Molecular Weight: ~820

Extinction Coefficient: 100,000

Substitute: Alexa Fluor 633, Alexa Fluor 647, Cy5, DyLight 633 and DyLight 649, etc.

## Storage

Store at -20°C and protect from light. When stored as directed, product is stable for at least 6 months.

## Description

The advantage of far-red dyes is ultra-high detection sensitivity. In this spectral region, the autofluorescence of most biological samples is small, so the fluorescent background is also small. For a long time, Cy5 has been used as a detection dye in this spectral region. In recent years, Alexa Fluor 647 has become a substitute for Cy5 due to its higher fluorescence intensity and better light stability. Despite this improvement, the light stability of Alexa Fluor 647 is still insufficient in some applications. Another option is Alexa Fluor 633, which has better light stability but weaker fluorescence intensity. Now, our scientists have developed a new far-red dye, YF633. YF633

has both good light stability and high fluorescence intensity, and it can stain proteins and nucleic acids. The absorption peak of YF633 is 630 nm, which can match 633 nm He-Ne laser or 635 nm red diode laser. The emission peak of YF633 is 650 nm, which is 15 nm shorter than that of Alexa Fluor 647 and Cy5. Although the detection window of most flow cytometers is around the emission peaks of Alexa Fluor 647 and other Cy5-like cyanine dyes, YF633 still produces brighter detection patterns than other dyes. In addition, YF633's more important advantage is its unparalleled light stability. Therefore, YF633 dye is a better choice for excitation system equipped with 633 nm or 650 nm laser.

## Notes

1. The final concentration of this product for long-term storage is 5~10 mg/mL. It is recommended to add 0.01-0.03% BSA and  $\text{NaN}_3$  to the storage solution to prevent denaturation and microbial growth.
2. There are quenching problems with fluorescent dyes. Please avoid light to slow down the fluorescence quenching.
3. For your safety and health, please wear lab coats and disposable gloves.

