pH630 Deep Red TFP Ester, Amine Reactive

Summary

Product Name	pH630 Deep Red TFP Ester, Amine reactive
Code	APK021
Storage conditions	-20℃, This product should be stable for at least 12 months

Description

pH630 Deep Red TFP Ester is an amine reactive dye that can easily react with primary amines of biomolecules to generate covalently linked fluorescent pH probes. pH630 Deep Red TFP Ester can be used to label primary amines on proteins, cells, or viruses, forming stable conjugates that only fluoresce in acidic environments. Our low background pH630 Deep Red dye simplifies the internalization process, makes the results more reliable, and minimizes optimization, as the pH630 Deep Red dye is only activated in late endosomes and lysosomes. The maximum excitation and emission values of pH630 Deep Red dye are approximately 640 nm and 655 nm, respectively, and can be detected using a standard Cy5 filter.

Background:

pH630 Deep Red dye is a low background pH sensor dye that does not display a signal under neutral conditions and only exhibits fluorescence in acidic environments. This unique property makes it possible to develop rapid assays and result certainty for the internalization, endocytosis, and phagocytosis pathways of antibodies. The pH630 Deep Red dye can better distinguish between intracellular and extracellular substances, as its approximate pKa value is 5, and it is only activated when entering late endosomes and lysosomes. The pH630 Deep Red dye can be detected using the Cy5 fluorescence filter set and has been validated for various applications, including flow cytometry, fluorescence microscopy, and high-throughput screening (HCS).