iFluor™ 546 Tyramide

Catalog number: 45103
Unit size: 200 Slides

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	1282.88
Soluble In	DMSO

Spectral Properties

Excitation Wavelength	541 nm
Emission Wavelength	557 nm

Applications

For many immunohistochemical (IHC) applications, the traditional enzymatic amplification procedures are sufficient for achieving adequate antigen detection. However, several factors limit the sensitivity and utility of these procedures. Tyramide signal amplification (TSA) has proven to be a particularly versatile and powerful enzyme amplification technique with improved assay sensitivity. TSA is based on the ability of HRP, in the presence of low concentrations of hydrogen peroxide, to convert labeled tyramine-containing substrate into an oxidized, highly reactive free radical that can covalently bind to tyrosine residues at or near the HRP. To achieve maximal IHC detection, tyramine is prelabeled with a fluorophore. The signal amplification conferred by the turnover of multiple tyramide substrates per peroxidase label translates ultrasensitive detection of low-abundance targets and the use of smaller amounts of antibodies and hybridization probes. In immunohistochemical applications, sensitivity enhancements derived from TSA method allow primary antibody dilutions to be increased to reduce nonspecific background signals, and can overcome weak immunolabeling caused by suboptimal fixation procedures or low levels of target expression. iFluor 546 tyramide contains the bright iFluor 546 that can be readily detected with the standard TRITC filter set. It is an excellent replacement for Alexa Fluor® 546 tyramide (Alexa Fluor® is the trade mark of ThermoFisher) or other spectrally similar fluorescent tyramide conjugates or TSA reagents (such as fluorescein tyramide).