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Datasheet

1. Material Provided

Item	Quantity
CFP™ 645 Fluorophore	1 Vial
Dimethyl sulfoxide (DMSO)	150 µL

Reconstitute the CFP™ fluorophore with 100 µL DMSO. Prepare the working solution by diluting the reconstituted fluorophore with CFP Reaction Buffer (Cat# R-CFPB).
Recommended working dilution range: 1:100 – 1:500, depending on desired signal intensity.
Apply 100 – 300 µL of the working solution per slide.

2. Product Information

Catalog Number:	F-645
Product Name:	CFP™ 645 Fluorophore Pack
Molecular Weight:	1580.98
Appearance:	Blue solid
Excitation/Emission	655 nm/670 nm
Soluble in:	DMSO
Shipping Condition:	Room Temperature
Storage Conditions:	Store dry reagent at -20 °C. The product can be stored for up to 6 months from date of receipt. Minimize light exposure. Upon reconstituting in DMSO, store aliquots in sealed vials at <-15°C or below and use within 3 months. Wherever possible, working solutions should be prepared and used on the same day.

3. Product Description

CFP™ Cleavable TSA Fluorophores generate fluorescence signals with exceptionally high precision and sensitivity, providing an effective means to detect low-abundance targets in spatial biology applications. They are designed for use in ISH, IHC, and ICC workflows where *in situ* detection of target proteins or nucleic acid sequences is required. These fluorophores are fully compatible with multiplex assays and can be combined with DAPI counterstaining.

Similar to conventional TSA fluorophores, signal amplification is achieved through the specific and covalent deposition of CFP™ dyes adjacent to a horseradish peroxidase (HRP)-labeled antibody or probe via the Tyramide Signal Amplification (TSA) process. However, CFP™ fluorophores are engineered for higher reactivity, resulting in faster and more robust staining compared to conventional TSA-based systems.

Unlike standard TSA fluorophores, CFP™ signals can be chemically removed using mild cleavage reagents (Cat# R-CAKT), allowing highly sensitive iterative staining with standard antibodies and preserving tissue integrity across multiple detection rounds.