

## Cyanine 5 bissuccinimidyl ester [equivalent to Cy5<sup>®</sup> bisNHS ester]

Catalog number: 157 Unit size: 1 mg

Product Details	
Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	12 months upon receiving
Chemical Properties	
Appearance	Blue solid
Molecular Weight	1038.23
Soluble In	DMSO
Chemical Structure	$O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0,S}$ $O_{0$
Spectral Properties	
Excitation Wavelength	651 nm
Emission Wavelength	670 nm

## Applications

A variety of cyanine 5 ( Cy5<sup>®</sup>) dyes has been used to label biological molecules for fluorescence imaging and other fluorescence-based biochemical analysis. They are widely used for labeling peptides, proteins and oligos etc. Cy5<sup>®</sup> dyes are one type of the most common red fluorophores. These versatile fluorophores can tolerate a pH range of 3-10 for use in a variety of applications at biologically relevant pHs. The dyes are also DMSO tolerant and photostable to enable transfer from storage to assay without loss of performance. The aqueous solubility eliminates the need for organic solvents in the assay buffers. Our Cy5<sup>®</sup> Fluors are thoroughly QC tested to ensure high levels of chromophore and reactive dye content. Mono-reactive dyes are suitable for targeted, precise labeling of proteins and oligonucleotides and bis-reactive dyes are more suitable for general labeling. NHS ester dyes are recommended for labeling amine groups and maleimide dyes are recommended for labeling thiol groups. This Cy5<sup>®</sup> NHS ester readily reacts with amino groups. AAT Bioquest offers Cy dye NHS esters in the form of triethylammonium salts that are more soluble in DMSO and DMF than the corresponding potassium salts that are offered by some other vendors. The Cy dye triethylammonium salts have the same reactivity and give the conjugates identical to the the Cy dye potassium salts. Cy5<sup>®</sup> is the trademark of GE Healthcare.