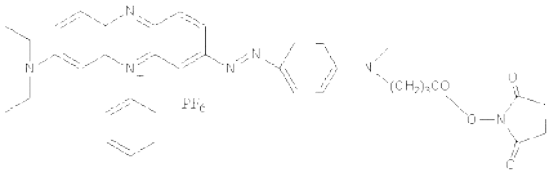
FT-BC8590

BHQ-3 NHS-ester

Dark quencher active ester for coupling to amine groups on peptide substrates

Product Description

Name :	**BHQ-3 Carboxylic acid, Succinimidyl Ester**
Catalog Number :	FP-BC8590, 5mg FP-BC8591, 25mg
Molecular Weight :	MW= 789.71 $C_{37}H_{38}F_6N_7O_4P$
Solubility:	DCM, methanol, DMSO, MeCN or DMF
Fluorescence:	λ_{exc}\λ_{em} (PCR buffer) = 670 nm / none Absorption max. (λ_{max}): 615nm Extinction Coefficient : (615nm): 40700 $M^{-1}.cm^{-1}$ (260nm): 13000 $M^{-1}.cm^{-1}$



Storage: -20°C Protect from light and moisture
Stability: Reducing agents that are commonly used to reduce dithiol bonds in proteins, such as DTT and TCEP, will also reduce BHQ-3 thereby causing a loss of color and of quenching efficiency.

Directions for use

Additional Spectroscopic Data

The absorption maximum of BHQ-3 is dependent on environmental factors such as solvent and the nature of the substrate to which it is attached.

Absorption max. in methanol: 656 nm
Absorption max. in DCM: 678 nm
Extinction coefficient at 280 nm (PBS, pH 7.3): 25000 $M^{-1}.cm^{-1}$
For BHQ-3 dye conjugated to the 5'-end of a polyT oligonucleotide:
Extinction coefficient at absorption max. 670 nm (PCR buffer): 42700 $M^{-1}.cm^{-1}$

Conjugation of BHQ-3 Osu to substrates:

Amine reactive reagents such as succinimide esters react with non-protonated aliphatic amino groups, including the amine terminius of proteins and the epsilon-amino group of lysines. To maintain the amine groups in the non-protonated form, the conjugation reaction must take place in a buffer with slightly basic pH. More specific labeling of the amine terminus may be achieved by using a buffer closer to neutral pH, as the pKa of the terminal amino group is lower than that of the lysine epsilon amino groups.

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Buffers, such as Tris, that contain primary amines should not be used with this product. Instead borate, phosphate or carbonate buffers shiuld be used. For best results with this product, we recommend using the buffers specified in the protocol below. The procedure may be scaled up or down, maintaining the same molar ratios of reagents. It is important to consider that the number and surface positions of the amino groups will vary greatly among proteins. The reactivity of the amino groups on proteins will vary according to the structure of the protein. If possible, we recomand experimentation with different molar ratios of reactive dye to protein in order to determine the protocol that yields the desired level of incorporation into the protein.

Related products

- BHQ-3 amino, FP-BC8570
- BHQ-3 COOH, FP-BC8580

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : FluoProbes® / Interchim; Hotline : +33(0)4 70 03 73 06

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