

dPEG[®]
based
Fluorescent
and other
Dye Labels

Lissamine Rhodamine B sulfonamide-dPEG[®]₄-acid

A fluorescent dPEG[®] label (5- and 6-mixed isomers)



Product Features and Benefits:

- dPEG[®]₄ pegylation spacer imparts additional water solubility to dye
- Allows incorporation of a water soluble, non-aggregating, non-immunogenic spacer into dye conjugate
- Pegylation Spacer is 19.5 Angstroms in length
- General activation procedure for making the NHS ester: Use EDC and NHS (10-20% moles excess) in methylene chloride to make the NHS ester. Other active esters can be made similarly.

Note of caution: The NHS should be added with the EDC to prevent formation of the anhydride.

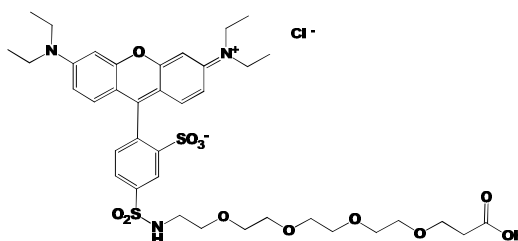
Note: This is just one of many activation methods, others include the use of DSC (N,N'-disuccinimidyl carbonate) and TEA in the appropriate solvent of choice, as well as the use of carbodiimides other than EDC.

Used for peptide labeling using a variety of activating "concoctions," which can also be used for direct coupling to other amines.

Protocol for in situ activation:

Use a 10-20% molar excess of EDC and NHS in dry methylene chloride (dried over 3 Angstroms molecular sieves). Add a methylene chloride solution of the acid to the dry reagents under dry conditions. Stir for several hours or overnight, then evaporate the solvent and use. Can also treat reaction mixture with a small amount of silica gel to adsorb the excess EDC and the urea by-product, filter, then evaporate the solvent and use.

Product #	Description	10 mg
10229	Lissamine Rhodamine B sulfonamide-dPEG [®] ₄ -acid	\$175



Mol. Wt.: 805.96; single compound
dPEG[®] Spacer is 16 atoms and 18 Å



Product Features and Benefits:

- x = 4 or 12
- Antigen to attach to carrier protein to make anti-DNP antibodies
- Antigen label for anti-DNP antibodies
- Unique dPEG[®] containing pegylation labeling reagents with amine reactivity as the activated NHS ester
- Vital NEW type of label carrier in antibody manufacturer
- Also for placing DNP as a probe diagnostic
- Hydrophilic, water solubilizing and non-immunogenic/non-antigenic spacer
- Using this compound in the applications will reduce or eliminate many problems inherent when using conventional chemistry, e.g., immunoreactivity to spacer, non-specific binding, increases water solubility, etc.

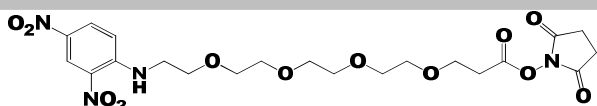
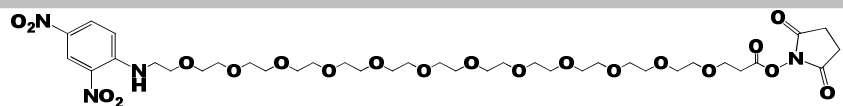
DNP probe applications: These can potentially used as the DNP label on the probe to which the anti-DNP is being applied, where the probe is amine reactive., including peptides, proteins and oligos/DNA, etc.

Protocol & References:

See Greg T. Hermanson, Bioconjugate Techniques, 2nd Ed, Elsevier Inc., Burlington, MA 01803, April, 2008 (ISBN-13: 978-0-12-370501-3; ISBN-10: 0-12-370501-0). See his Chapter 19 especially in hapten-carrier chemistry and applications, as well as Chapter 18 on Discrete PEG pegylation reagents, with much of the chapter featuring our reagents!

Applications:

Hapten-carrier for anti-DNP antibodies: The DNP-dPEG[®]_x NHS esters can be used to label a carrier such as KLH for generating anti-DNP antibodies. Using the dPEG[®]_x spacers not only eliminate the immunogenicity of conventional activation technologies, they also enhance the labeling capacity on the carrier by adding water solubility inherent in the dPEG[®] spacer. The result will be better more specific anti-DNP antibodies.

Product #	Description	100 mg	1000 mg
10347	DNP-dPEG [®] ₄ -NHS ester	\$200	\$1000
 <p>Mol. Wt.: 528.47; single compound dPEG[®] Spacer is 16 atoms and 18.0 Å</p>			
10399	DNP-dPEG [®] ₁₂ -NHS ester	\$250	\$1250
 <p>Mol. Wt.: 880.89; single compound dPEG[®] Spacer is 40 atoms and 46.4 Å</p>			



Product Features and Benefits:

- x = 4 or 12
- Unique dPEG[®] containing pegylation labeling reagent with amine reactivity
- Activate the acid activated in situ, e.g., EDC/NHS
- Vital NEW
- type of label carrier in antibody manufacturer
- Also for placing DNP as a probe diagnostic
- Hydrophilic, water solubizing and non-immunogenic/non-antigenic spacer
- Using this compound in the applications will reduce or eliminate many problems inherent when using conventional chemistry, e.g., immunoreactivity to spacer, non-specific binding, increases water solubility, etc.

Protocol & References:

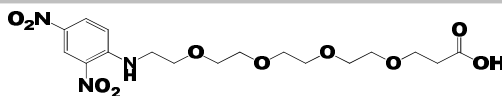
See Greg T. Hermanson, Bioconjugate Techniques, 2nd Ed, Elsevier Inc., Burlington, MA 01803, April, 2008 (ISBN-13: 978-0-12-370501-3; ISBN-10: 0-12-370501-0). See his Chapter 19 especially in hapten-carrier chemistry and applications, as well as Chapter 18 on Discrete PEG pegylation reagents, with much of the chapter featuring our reagents!

Applications:

Hapten-carrier for anti-DNP antibodies: The DNP-dPEG[®]_x acids (also see PN 10347 & 10399, the NHS ester) can be used to label a carrier such as KLH for generating anti-DNP antibodies. Using the dPEG[®] as a spacer not only eliminates the immunogenicity of conventional activation technologies, as well as enhancing the labeling capacity on the carrier by adding water solubility inherent in the dPEG[®] spacer. The result will be better, more specific anti-DNP antibodies.

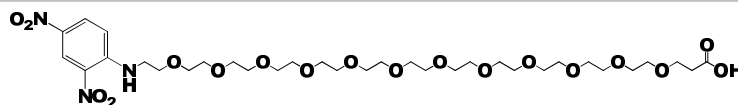
DNP probe applications: This can potentially used as the DNP label on the probe to which the anti-DNP is being applied, where the probe is amine reactive., including peptides, proteins and oligos/DNA, etc.

Product #	Description	100 mg	1000 mg
10346	DNP-dPEG [®] ₄ -acid	\$175	\$900



Mol. Wt.: 431.39; single compound
dPEG[®] Spacer is 16 atoms and 18.0 Å

10398	DNP-dPEG [®] ₁₂ -acid	\$225	\$1125
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Mol. Wt.: 783.82; single compound
dPEG[®] Spacer is 45 atoms and 50 Å