



# Product Catalog


Leading innovator, producer and provider of monodisperse  
discrete pegtm (dPEG™) derivatives

**QUANTA BIODESIGN**  
L I M I T E D

Fax your orders to 614 760-9781 or **NEW:** Order online at [www.quantabiodesign.com](http://www.quantabiodesign.com)

195 West Olentangy Street | Suite O | Powell, Ohio 43065 | Tel: 866 792-9222 | Fax: 614 760-9781 | [sales@quantabiodesign.com](mailto:sales@quantabiodesign.com) | [www.quantabiodesign.com](http://www.quantabiodesign.com)

Last update 12/09



Quanta BioDesign, Ltd. was founded in March, 1999 in Powell, Ohio by **Paul D. Davis, Ph.D.** for the purpose of developing and commercializing an extensive line of products for companies involved in drug discovery and diagnostic development programs. These products are based on our proprietary discrete polyethylene glycol (dPEG<sup>®</sup>) chemistries, including our unique processes for making these important compounds. Our single molecular weight ethylene glycol conjugation technology, dPEG<sup>®</sup>, can eliminate common problems found in the development of diagnostic and therapeutic products, such as aggregation and non-specific interactions, poor water solubility, poor delivery, delivery issues/options, short serum half life, toxicity and antigenicity.

The dPEG<sup>®</sup> product line is a unique technology platform which can be custom tailored to meet specific physical, chemical and morphological requirements in a broad array of diagnostic and therapeutic applications. Chemistry applications which incorporate dPEG<sup>®</sup> products include conjugations, simple chemical modifications, cross linking, biotinylation, signal amplification, modification of biological therapeutics and peptide synthesis.

Recently we introduced dPEG<sup>®</sup> products that offer new delivery options as well. We are involved in developing new cross-linking and labeling chemistries that incorporate the dPEG<sup>®</sup> technology, and will allow for completely new approaches to existing opportunities in these same areas of therapeutic and diagnostic development, and will revolutionize many of these areas as the new generations of drugs and diagnostics evolve.

Each product is of high purity, a single discrete compound and available in bulk quantities at discounted prices.

Please also visit our website: [www.QuantaBioDesign.com](http://www.QuantaBioDesign.com).



## How do I order?

- **Phone:** (866) 792-9222 or (614) 792-2958  
Monday through Friday 9:00 am to 5:00 pm (EST)
- **Fax:** (614) 760-9781 (24 hours, 7 days a week)
- **E-mail:** [sales@quantabiodesign.com](mailto:sales@quantabiodesign.com)
- **Website:** [www.quantabiodesign.com](http://www.quantabiodesign.com)

## Ordering Information needed

- Your name or customer account name
- Telephone and /or Fax
- Shipping and Billing Addresses
- Purchase Order # or Credit Card Information or other Payment Method
- Product number and Quantities
- Valid e-mail address (if available)
- If confirmation is requested, please request on the order form
- Orders can be placed any time by fax or e-mail

## Payment

We accept MasterCard, Visa, American Express, USD check, and bank transfers. Our banking information will be on the invoice. (Please do not send cash)

## Shipping and Storage Details

Products will usually ship the order the same day, if it is received by 3:00pm EST. Most of the compounds we sell are stable under normal conditions. We ship our compounds via Fedex overnight with ice packs or under refrigerated conditions as necessary. Orders outside the United States are shipped by Fedex International Priority. We recommend storing Quanta products in the freezer at -20°C or in the refrigerator at 4° for long term storage. The storage details will be shipped with the product.

**No products are shipped or delivered on weekends or U.S. holidays.**



If you have a technical question about a product you received or have seen in the catalog, please send an e-mail to [tech@quantabiodesign.com](mailto:tech@quantabiodesign.com) or call us at (614)792-2958 or (866) 792-9222.

## Material Safety Data Sheets

MSDS's are available on our website under each individual product. We can also fax or e-mail a copy. Please mention your request on the order form if needed.

## Product Analysis

Quanta BioDesign's products are unique, single molecular weight (MW), discrete PEG (dPEG™) compounds, synthesized de novo from pure, small units (e.g., triethylene glycol or tetraethylene glycol). Purity is assayed by HPLC, TLC, and/or NMR.

## Certificate of Analysis

A certificate of analysis (C of A) will be sent with your product(s) if requested. The C of A provides the test method used, the results, and the purity level of the product.



## United States

**Peptides International**  
11621 Electron Drive  
Louisville, Kentucky 40299  
Phone: 1-800-777-4779  
Fax: (502)-267-1329  
Web: [www.pepnet.com](http://www.pepnet.com)

**ThermoFisher Scientific**  
P.O. Box 117  
Rockford, Illinois 61105  
Phone: (800) 874-3723  
Fax: (800) 842-5007  
Web: [www.piercenet.com](http://www.piercenet.com)

**VWR International**  
1310 Goshen Parkway  
West Chester, PA 19380  
Orders: 800-932-5000  
Web: [www.vwr.com](http://www.vwr.com)

**Tim Tec, Inc.**  
100 Interchange Boulevard  
Newark, Delaware 19711  
Phone: (302) 292-8500  
Fax: (302) 292-8520  
e-mail: [info@timtec.net](mailto:info@timtec.net)  
Web: [www.timtec.net](http://www.timtec.net)

## Japan

**Nacalai Tesque, Inc.**  
498 Higashitamaya-cho  
Hijo Karasuma, Nakagyo-ku  
Kyoto 604-0855 Japan  
Phone: +81 6 6203 3740; 0120  
052 099  
Phone: +81 75 251 1723  
Fax: +81 75 251-1762  
Web: [www.wako-chem.co.jp](http://www.wako-chem.co.jp)  
E-mail: [info.intl@nacalai.co.jp](mailto:info.intl@nacalai.co.jp)  
Web: [www.nacalai.com](http://www.nacalai.com)

**Wako Pure Chemical Industries**  
1-2 Doshomachi 3-Chome  
Chuo-ku  
Osaka 540-8605  
Toll-Free Phone: 0120 489 552  
Fax: +81 6 6201 5964; 0120 052 806  
E-mail: [labchem-tec@wako-chem.co.jp](mailto:labchem-tec@wako-chem.co.jp)

## Europe

**Bio-Connect BV**  
Begonialaan 3a  
6851 TE Hulssen  
The Netherlands  
Phone: +31 (0)326 4450  
Fax: +31 (0)26 326 4451  
E-mail: [info@bio-connect.nl](mailto:info@bio-connect.nl)  
Web: [www.bio-connect.nl](http://www.bio-connect.nl)

**Celares GmbH**  
Robert-Rössler-Strasse 10  
D-13125 Berlin  
Germany  
Phone: +49 (0) 30 9489 2350  
Fax: +49 (0) 30 9489 2351  
Web: [www.celares.co](http://www.celares.co)

# dPEG<sup>®</sup> Based Reagents for Peptide Modification

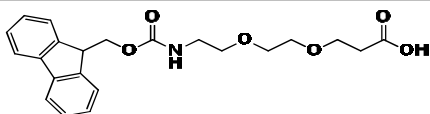
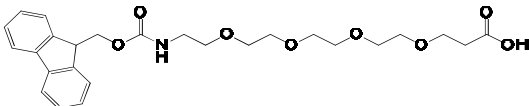
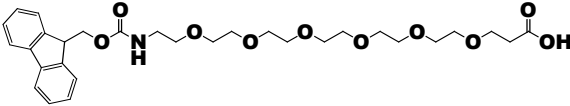
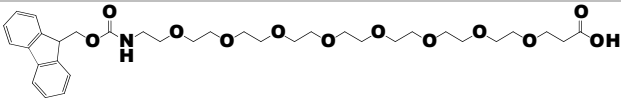
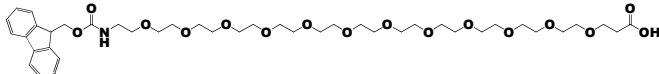
Add all the amazing properties of dPEG<sup>®</sup> to your application with precision and control using a variety of functionality

# N-Fmoc-amido-dPEG<sup>®</sup><sub>x</sub>-acid



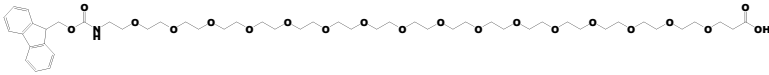
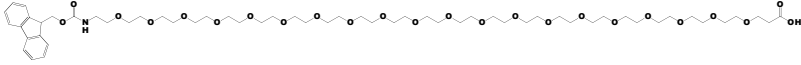
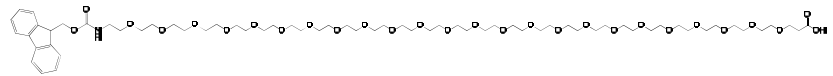
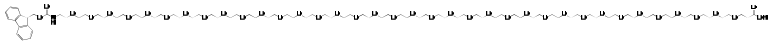
## Product Features and Benefits:

- x = 2, 4, 6, 8, 12, 16, 20, 24 or 36
- incorporate a dPEG<sup>®</sup> unit selectively using standard Fmoc chemistry
- Peptide pegylation reagent, Fmoc protected dPEG<sup>®</sup> amino acids
- Useful for incorporating all of the wonderful properties of a dPEG<sup>®</sup>, either as a spacer in or terminating group of the peptide sequence
- Pegylation spacer incorporates water solubility, reduces or eliminates aggregation, and is inherently non-immunogenic and non-toxic
- Pricing issues, request bulk pricing. We would love to see this product in your specific and vital application

Product #	Description	100 mg	1000 mg	5000 mg
10243	N-Fmoc-amido-dPEG <sup>®</sup> <sub>2</sub> -acid  Mol. Wt.: 399.44; single compound dPEG <sup>®</sup> Spacer is 10 atoms and 10.9 Å	NA	\$175	\$625
10213	N-Fmoc-amido-dPEG <sup>®</sup> <sub>4</sub> -acid  Mol. Wt.: 487.54; single compound dPEG <sup>®</sup> Spacer is 17 atoms and 18.1 Å	\$100	\$275	\$1000
10063	N-Fmoc-amido-dPEG <sup>®</sup> <sub>6</sub> -acid  Mol. Wt.: 575.65; single compound dPEG <sup>®</sup> Spacer is 22 atoms and 25.1 Å	\$125	\$425	\$1250
10273	N-Fmoc-amido-dPEG <sup>®</sup> <sub>8</sub> -acid  Mol. Wt.: 663.75; single compound dPEG <sup>®</sup> Spacer is 28 atoms and 32.2 Å	\$150	\$600	NA
10283	N-Fmoc-amido-dPEG <sup>®</sup> <sub>12</sub> -acid  Mol. Wt.: 839.96; single compound dPEG <sup>®</sup> Spacer is 40 atoms and 46.5 Å	\$150	\$700	NA

# N-Fmoc-amido-dPEG<sup>®</sup><sub>x</sub>-acid (cont.)



Product #	Description	100 mg	1000 mg	5000 mg
10293	N-Fmoc-amido-dPEG <sup>®</sup> <sub>16</sub> -acid  Mol. Wt.: 1016.17; single compound dPEG <sup>®</sup> Spacer is 51 atoms and 60.7 Å	\$200	\$800	NA
10923	N-Fmoc-amido-dPEG <sup>®</sup> <sub>20</sub> -acid  Mol. Wt.: 1192.38; single compound dPEG <sup>®</sup> Spacer is 64 atoms and 75.2 Å	\$200	\$1000	NA
10313	N-Fmoc-amido-dPEG <sup>®</sup> <sub>24</sub> -acid  Mol. Wt.: 1368.59; single compound dPEG <sup>®</sup> Spacer is 76 atoms and 89 Å	\$250	\$1250	NA
10903	N-Fmoc-amido-dPEG <sup>®</sup> <sub>36</sub> -acid  Mol. Wt.: 1897.22; single compound dPEG <sup>®</sup> Spacer is 111 atoms and 132.7 Å	\$300	\$1400	NA

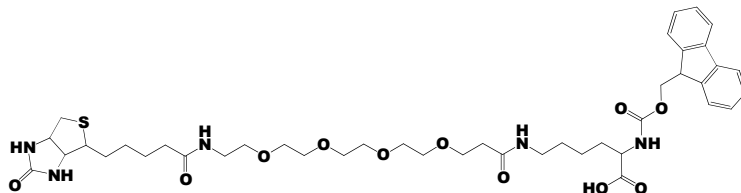
# N-Fmoc-Lys-(dPEG<sup>®</sup><sub>x</sub>-biotin)-OH-(acid)



## Product Features and Benefits:

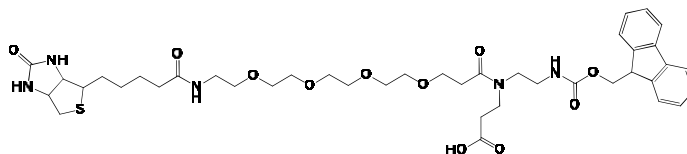
- x = 4 or 12
- incorporated a dPEG<sup>®</sup> linked biotin for added availability and solubility using standard Fmoc chemistry
- NEW biotinylation reagent in peptide synthesis, with built-in pegylation spacer arm for optimal Streptavidin binding
- An N-Fmoc protected hydrophilic, non-immunogenic biotinylation pegylation reagent for peptide synthesis
- Useful for incorporating our powerful dPEG<sup>®</sup><sub>4</sub>-biotin DIRECTLY into the peptide synthesis, without having to label a side chain or label the N-terminus, AND the...
- Incorporation of the dPEG<sup>®</sup><sub>4</sub> spacer with the biotin will increase water solubility and reduce or eliminate aggregation, while having the length in the spacer to optimize the interaction with the avidin conjugate of your choice.

Product #	Description	50 mg	100 mg	1000 mg
10613	N-Fmoc-Lys-(dPEG <sup>®</sup> <sub>4</sub> -biotin)-OH-(acid)	NA	\$200	\$1000



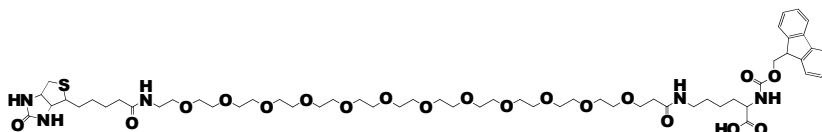
Mol. Wt.: 842.01; single compound  
dPEG<sup>®</sup> Spacer is 19.1 atoms and 16 Å

10602	N-Fmoc-amido-(dPEG <sup>®</sup> <sub>4</sub> -biotin)-acid	\$150	\$250	\$1250
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Mol. Wt.: 827.98; single compound  
dPEG<sup>®</sup> Spacer is 19.1 atoms and 16 Å

10615	N-Fmoc-Lys-(dPEG <sup>®</sup> <sub>12</sub> -biotin)-OH-(acid)	NA	\$300	\$1350
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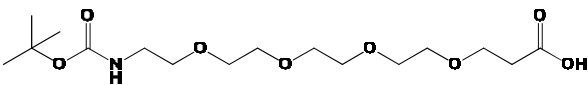
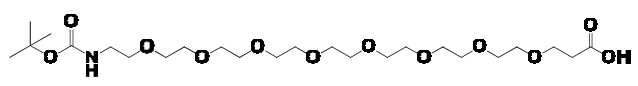
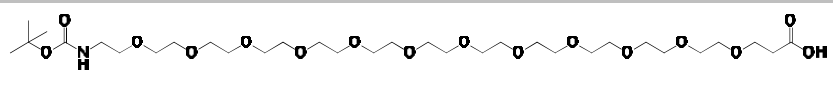
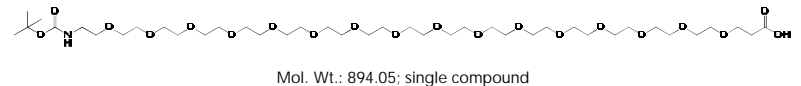
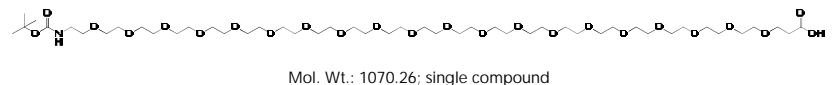
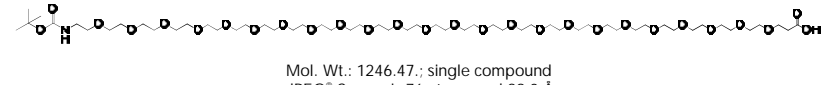
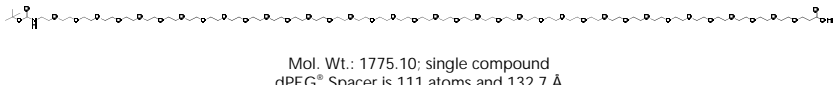
Mol. Wt.: 1194.43; single compound  
dPEG<sup>®</sup> Spacer is 60 atoms and 57.9 Å

# N-t-boc-amido-dPEG<sup>®</sup><sub>x</sub>-acid



## Product Features and Benefits:

- x = 4, 8, 12, 16, 20, 24 or 36
- incorporate a dPEG<sup>®</sup> unit selectively using standard Fmoc chemistry
- N-t-boc protected dPEG<sup>®</sup> amino acid pegylation reagents for peptide synthesis
- Useful for incorporating all of the wonderful properties of a dPEG<sup>®</sup>, either as a spacer in or terminating group of the peptide sequence
- Pegylation spacer incorporates water solubility, reduces or eliminates aggregation, and is inherently non-immunogenic and non-toxic
- Pricing issues, request bulk pricing. We would love to see this product in your specific and application

Product #	Description	100 mg	1000 mg	5000 mg
10220	N-t-boc-amido-dPEG <sup>®</sup> <sub>4</sub> -acid	\$100	\$275	\$950
	 <p>Mol. Wt.: 365.42; single compound dPEG<sup>®</sup> Spacer is 17 atoms and 19.2 Å</p>			
10760	N-t-boc-amido-dPEG <sup>®</sup> <sub>8</sub> -acid	\$150	\$650	upon request
	 <p>Mol. Wt.: 541.63; single compound dPEG<sup>®</sup> Spacer is 28 atoms and 32.2 Å</p>			
10761	N-t-boc-amido-dPEG <sup>®</sup> <sub>12</sub> -acid	\$175	\$750	upon request
	 <p>Mol. Wt.: 717.84; single compound dPEG<sup>®</sup> Spacer is 40 atoms and 46.4 Å</p>			
10292	N-t-boc-amido-dPEG <sup>®</sup> <sub>16</sub> -acid	\$200	\$850	upon request
	 <p>Mol. Wt.: 894.05; single compound dPEG<sup>®</sup> Spacer is 51 atoms and 60.7 Å</p>			
10922	N-t-boc-amido-dPEG <sup>®</sup> <sub>20</sub> -acid	\$225	\$1000	upon request
	 <p>Mol. Wt.: 1070.26; single compound dPEG<sup>®</sup> Spacer is 75.2 atoms and 64 Å</p>			
10763	N-t-boc-amido-dPEG <sup>®</sup> <sub>24</sub> -acid	\$250	\$1250	upon request
	 <p>Mol. Wt.: 1246.47; single compound dPEG<sup>®</sup> Spacer is 76 atoms and 89.0 Å</p>			
10902	N-t-boc-amido-dPEG <sup>®</sup> <sub>36</sub> -acid	\$300	\$1400	upon request
	 <p>Mol. Wt.: 1775.10; single compound dPEG<sup>®</sup> Spacer is 111 atoms and 132.7 Å</p>			

# Methoxytrityl-N-dPEG<sup>®</sup><sub>x</sub>-acid

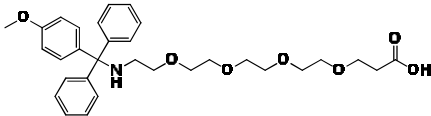
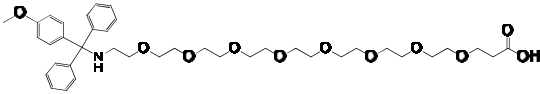
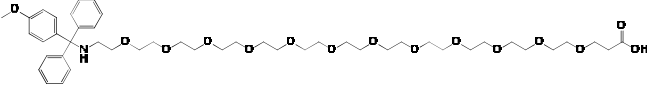
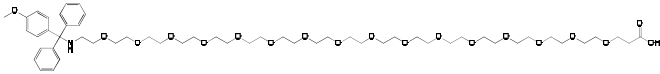
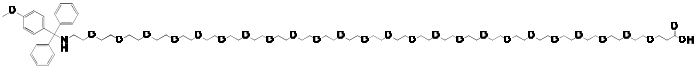


## Product Features and Benefits:

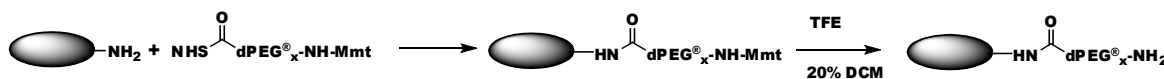
- x = 4, 8, 12, 16 or 24
- incorporate a dPEG<sup>®</sup> unit selectively using an orthogonal amino protecting group
- Useful for incorporating the a protected amine whose protecting group is orthogonal to the Fmoc or t-boc protecting groups. AND it contains the very powerfully useful dPEG<sup>®</sup> containing pegylation spacer chain. In this case it contains 4 dPEG<sup>®</sup> units.
- The dPEG<sup>®</sup> pegylation spacer has all the powerful properties of the dPEG<sup>®</sup>, including its high water solubility, non-immunogenicity, and non-aggregating properties
- Mmt can be removed under a number of conditions, but we find that using 20% TFE (trifluoroethanal) in methylene chloride is most effective.
- Needs to be activated to the active ester with e.g. EDC or DCC NHS, HOBt or PFP.

## References:

Some references to the use of the Mmt as an amino protection groups with amino acids: a) G.M. Dubowchik and S. Rakia, Tetrahedron Letters, 38(30), 5257-5260 (1997); b) S. Matysiak, et al., *ibid.*, 39, 1733-1734 (1998); c) D. W. Will, et al., Tetrahedron, 51 (44), 12069-12082 (1995); d) A. Aletras, et al., *Int. J. Peptide Protein Res.*, 45,488-496 (1995)

Product #	Description	100 mg	1000 mg
10358	Methoxytrityl-N-dPEG <sup>®</sup> <sub>4</sub> -acid  Mol. Wt.: 537.64; single compound dPEG <sup>®</sup> Spacer is 16 atoms and 18.3 Å	\$125	\$300
10393	Methoxytrityl-N-dPEG <sup>®</sup> <sub>8</sub> -acid  Mol. Wt.: 713.85; single compound dPEG <sup>®</sup> Spacer is 28 atoms and 32.2 Å	\$175	\$650
10394	Methoxytrityl-N-dPEG <sup>®</sup> <sub>12</sub> -acid  Mol. Wt.: 890.06; single compound dPEG <sup>®</sup> Spacer is 40 atoms and 46.5Å	\$200	\$750
10395	Methoxytrityl-N-dPEG <sup>®</sup> <sub>16</sub> -acid  Mol. Wt.: 1066.27; single compound dPEG <sup>®</sup> Spacer is 52 atoms and 60.4 Å	\$225	\$900
10396	Methoxytrityl-N-dPEG <sup>®</sup> <sub>24</sub> -acid  Mol. Wt.: 1418.70; single compound dPEG <sup>®</sup> Spacer is 76 atoms and 89 Å	\$275	\$1250

# Methoxytrityl-N-dPEG<sup>®</sup><sub>x</sub>-TFP ester

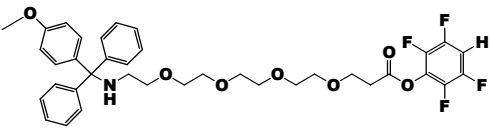
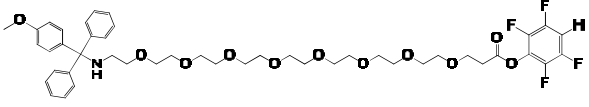
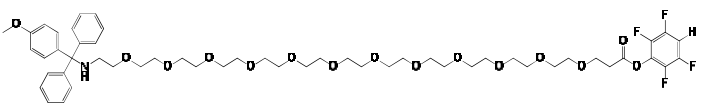
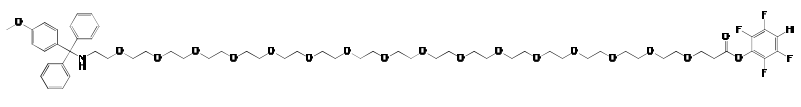


## Product Features and Benefits:

- x = 4, 8, 12, 16, 20, 24 or 36
- do so as the active ester
- Useful for incorporating the a protected amine whose protecting group is orthogonal to the Fmoc or t-boc protecting groups. AND is contains the very powerfully useful dPEG<sup>®</sup> containing pegylation spacer chain. In this case it contains 4 dPEG<sup>®</sup> units.
- The dPEG<sup>®</sup> pegylation spacer has all the powerful properties of the dPEG<sup>®</sup>, including its high water solubility, non-immunogenicity, and non- aggregating properties
- Mmt can be removed under a number of conditions, but we find that using 20% TFE (trifluoroethanal) in methylene choride is most effective.

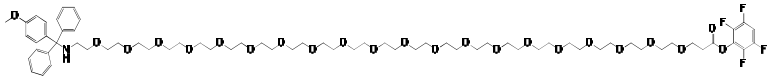
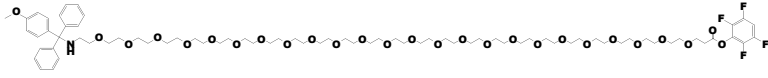
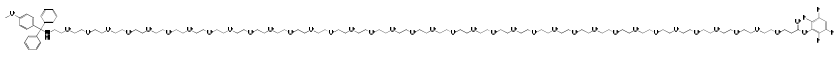
## References:

Some references to the use of the Mmt as an amino protection groups with amino acids: a) G.M. Dubowchik and S. Rakia, Tetrahedron Letters, 38(30), 5257-5260 (1997); b) S. Matysiak, et al., *ibid.*, 39, 1733-1734 (1998); c) D. W. Will, et al., Tetrahedron, 51 (44), 12069-12082 (1995); d) A. Aletras, et al., *Int. J. Peptide Prtein Res.*, 45,488-496 (1995)

Product #	Description	100 mg	1000 mg
10751	Methoxytrityl-N-dPEG <sup>®</sup> <sub>4</sub> -TFP ester	\$150	\$350
	 <p>Mol. Wt.: 703.69; single compound dPEG<sup>®</sup> Spacer is 16 atoms and 18.1 Å</p>		
10752	Methoxytrityl-N-dPEG <sup>®</sup> <sub>8</sub> -TFP ester	\$200	\$700
	 <p>Mol. Wt.: 879.90; single compound dPEG<sup>®</sup> Spacer is 28 atoms and 31.4 Å</p>		
10753	Methoxytrityl-N-dPEG <sup>®</sup> <sub>12</sub> -TFP ester	\$225	\$850
	 <p>Mol. Wt.: 1056.11; single compound dPEG<sup>®</sup> Spacer is 40 atoms and 46.4 Å</p>		
10754	Methoxytrityl-N-dPEG <sup>®</sup> <sub>16</sub> -TFP ester	\$250	\$1000
	 <p>Mol. Wt.: 1232.32; single compound dPEG<sup>®</sup> Spacer is 52 atoms and 61.5 Å</p>		

# Methoxytrityl-N-dPEG<sup>®</sup><sub>x</sub>-TFP ester (cont.)



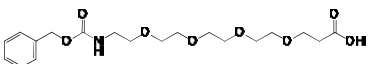
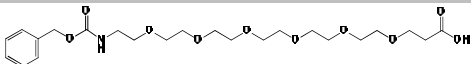
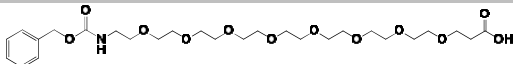
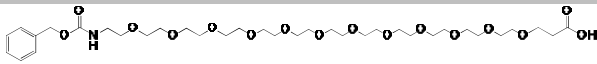
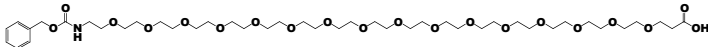
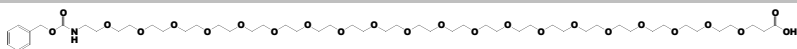
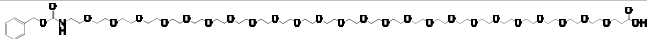
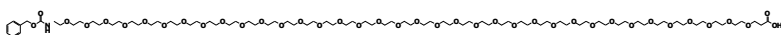
Product #	Description	100 mg	1000 mg
10843	Methoxytrityl-N-dPEG <sup>®</sup> <sub>20</sub> -TFP ester	\$275	\$1150
	 <p>Mol. Wt.: 1232.32; single compound dPEG<sup>®</sup> Spacer is 52 atoms and 61.5 Å</p>		
10755	Methoxytrityl-N-dPEG <sup>®</sup> <sub>24</sub> -TFP ester	\$300	\$1350
	 <p>Mol. Wt.: 1584.74; single compound dPEG<sup>®</sup> Spacer is 76 atoms and 88.8 Å</p>		
10845	Methoxytrityl-N-dPEG <sup>®</sup> <sub>36</sub> -TFP ester	\$350	\$1400
	 <p>Mol. Wt.: 2095.38; single compound dPEG<sup>®</sup> Spacer is 111 atoms and 132.7 Å</p>		

# N-CBZ-amido-dPEG<sup>®</sup><sub>x</sub>-acid



## Product Features and Benefits:

- x = 4, 6, 8, 12, 16, 20, 24 or 36
- incorporate a dPEG<sup>®</sup> unit selectively using standard and clean Cbz- chemistry
- N-CBZ protected dPEG<sup>®</sup> amino acid pegylation reagents for peptide synthesis
- N-CBZ is especially suited for solution synthesis for the simple and clean removal of the CBZ protecting group using catalytic Pd/C and hydrogen
- Useful for incorporating all of the wonderful properties of a dPEG<sup>®</sup>, either as a spacer or terminating group in the peptide sequence
- Pegylation spacer incorporates water solubility, reduces or eliminates aggregation, and is inherently non-immunogenic and non-toxic
- Pricing issues, request bulk pricing. We would love to see this product in your special application

Product #	Description	100 mg	1000 mg
10268	N-CBZ-amido-dPEG <sup>®</sup> <sub>4</sub> -acid  Mol. Wt.: 399.44; single compound dPEG <sup>®</sup> Spacer is 17 atoms and 19.2 Å	\$125	\$300
10066	N-CBZ-amido-dPEG <sup>®</sup> <sub>6</sub> -acid  Mol. Wt.: 487.54; single compound dPEG <sup>®</sup> Spacer is 22 atoms and 25.1 Å	\$150	\$600
10276	N-CBZ-amido-dPEG <sup>®</sup> <sub>8</sub> -acid  Mol. Wt.: 575.65; single compound dPEG <sup>®</sup> Spacer is 28 atoms and 32.2 Å	\$150	\$600
10286	N-CBZ-amido-dPEG <sup>®</sup> <sub>12</sub> -acid  Mol. Wt.: 751.86; single compound dPEG <sup>®</sup> Spacer is 40 atoms and 46.5 Å	\$150	\$700
10296	N-CBZ-amido-dPEG <sup>®</sup> <sub>16</sub> -acid  Mol. Wt.: 928.07; single compound dPEG <sup>®</sup> Spacer is 51 atoms and 60.7 Å	\$200	\$850
10926	N-CBZ-amido-dPEG <sup>®</sup> <sub>20</sub> -acid  Mol. Wt.: 1201.35; single compound dPEG <sup>®</sup> Spacer is 64 atoms and 75.2 Å	\$225	\$1050
10316	N-CBZ-amido-dPEG <sup>®</sup> <sub>24</sub> -acid  Mol. Wt.: 1280.49; single compound dPEG <sup>®</sup> Spacer is 76 atoms and 88.5 Å	\$250	\$1250
10906	N-CBZ-amido-dPEG <sup>®</sup> <sub>36</sub> -acid  Mol. Wt.: 1809.12 single compound dPEG <sup>®</sup> Spacer is 111 atoms and 132.7 Å	\$300	\$1400

# Methoxytrityl-S-dPEG<sup>®</sup>x acid



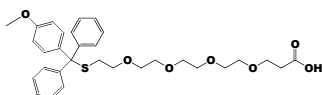
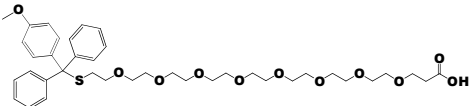
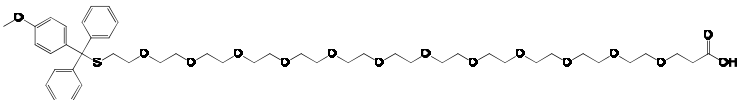
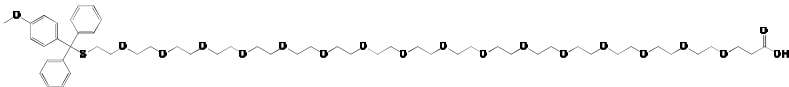
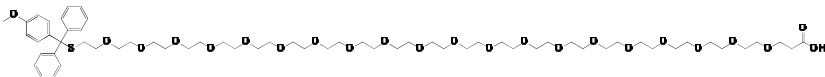
1. Peptide synthesis: Protecting group orthogonal to Fmoc and t-boc... removable with very mild acid with no effect on Fmoc or t-boc!

2. Extend NH<sub>2</sub> with a dPEG<sup>®</sup> and gain great properties of dPEG<sup>®</sup> with amine extended and available!



## Product Features and Benefits:

- x = 4, 8, 12, 16 or 20
- add a thiol terminally or post synthetically with a dPEG<sup>®</sup> spacer
- Methoxy trityl is easily removed with TFA... more so than the standard trityl
- Useful pegylation reagents for incorporating the sulfhydryl moiety into a peptide, that contains the dPEG<sup>®</sup> pegylation unit
- Potentially a significant alternative to cysteine for incorporating the sulfhydryl into peptides
- Useful for incorporating all of the wonderful properties of a dPEG<sup>®</sup>, either as a spacer or terminating group in the peptide sequence
- Pegylation spacer incorporates water solubility, reduces or eliminates aggregation, and is inherently non-immunogenic and non-toxic
- Pricing issues, request bulk pricing. We would love to see this product in your special application
- Mmt can be removed with <5% TFA in the presence of TIS (triisopropyl silane).

Product #	Description	100 mg	1000 mg
10301	Methoxytrityl-S-dPEG <sup>®</sup> <sub>4</sub> -acid	\$150	\$550
	 <p>Mol. Wt.: 554.70; single compound dPEG<sup>®</sup> Spacer is 16 atoms and 18.3 Å</p>		
10166	Methoxytrityl-S-dPEG <sup>®</sup> <sub>8</sub> -acid	\$200	\$900
	 <p>Mol. Wt.: 730.91; single compound dPEG<sup>®</sup> Spacer is 28 atoms and 32.5 Å</p>		
10846	Methoxytrityl-S-dPEG <sup>®</sup> <sub>12</sub> -acid	\$250	\$1050
	 <p>Mol. Wt.: 907.11; single compound dPEG<sup>®</sup> Spacer is 39 atoms and 46.8 Å</p>		
10847	Methoxytrityl-S-dPEG <sup>®</sup> <sub>16</sub> -acid	\$350	\$1200
	 <p>Mol. Wt.: 1083.32; single compound dPEG<sup>®</sup> Spacer is 51 atoms and 61.0 Å</p>		
10848	Methoxytrityl-S-dPEG <sup>®</sup> <sub>20</sub> -acid	\$400	\$1300
	 <p>Mol. Wt.: 1259.54; single compound dPEG<sup>®</sup> Spacer is 63 atoms and 75.5 Å</p>		

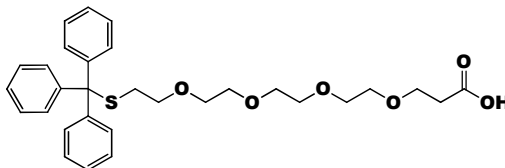
# Trityl-S-dPEG<sup>®</sup><sub>4</sub>-acid



## Product Features and Benefits:

- Useful pegylation reagent for incorporating the sulfhydryl moiety and dPEG<sup>®</sup> unit into a peptide.
- Potentially a significant alternative to cysteine for incorporating the sulfhydryl into peptides
- Useful for incorporating all of the wonderful properties of the dPEG<sup>®</sup>, either as a spacer or terminating group in the peptide sequence
- Pegylation spacer incorporated water solubility, reduces or eliminates aggregation, and is inherently non-immunogenic and non-toxic
- Pricing issues, request bulk pricing. We would love to see this product in your special application
- Pegylation reagent incorporates a dPEG<sup>®</sup> chain of 16 atoms and 18.3 Å in length,
- Trityl is removed using 25-50% TFA with 5% TIS (triisopropyl silane)

Product #	Description	100 mg	1000 mg
10300	Trityl-S-dPEG <sup>®</sup> <sub>4</sub> -acid	\$150	\$600



Mol. Wt.: 524.67; single compound  
dPEG<sup>®</sup> Spacer is 16 atoms and 18.3 Å

