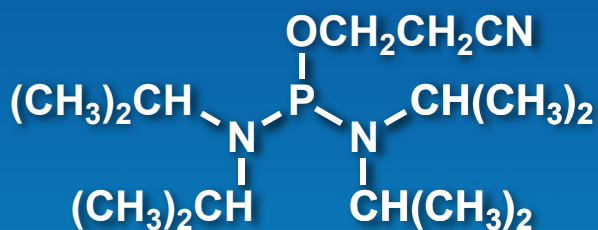


Easy-to-Handle and Safe Phosphitylation Reagent for DNA and RNA Fragment Synthesis



2-Cyanoethyl *N,N,N',N'*-Tetraisopropylphosphordiamidite

1g / 5g

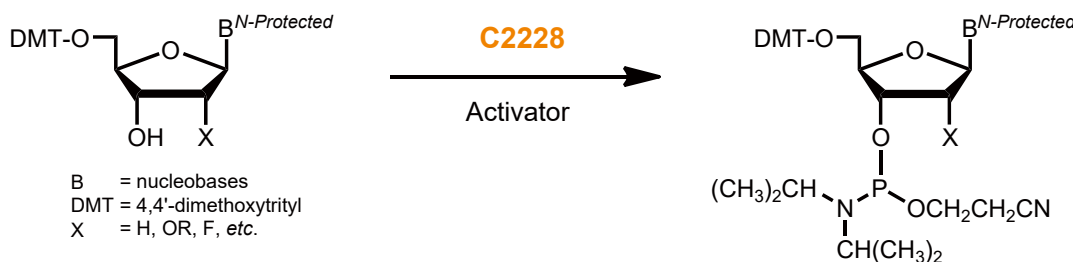
[C2228]

Advantage

More thermally-stable and easier to handle than other phosphitylation reagents

Protected 2'-deoxyribo and ribonucleoside-3'-phosphoramidites, which have been widely used for syntheses of DNA and RNA fragments, are prepared from *N,O*-protected nucleosides and a phosphitylation reagent with an activator such as 1*H*-tetrazole. **C2228** has been the reagent of frequent choice for phosphitylation due to its ease in handling and safety.¹⁻⁴⁾

Applications



References

- 1) J. Nielsen, M. Taagaard, J. E. Marugg, J. H. van Boom, O. Dahl, *Nucleic Acids Res.* **1986**, *14*, 7391. <https://doi.org/10.1093/nar/14.18.7391>
- 2) I. Okamoto, K. Shohda, K. Seio, M. Sekine, *J. Org. Chem.* **2003**, *68*, 9971. <https://doi.org/10.1021/jo035246b>
- 3) A. Misra, S. Mishra, K. Misra, *Bioconjugate Chem.* **2004**, *15*, 638. <https://doi.org/10.1021/bc049976h>
- 4) R. Gukathasan, S. A. Laneman, et al., *J. Organomet. Chem.* **2005**, *690*, 2603. <https://doi.org/10.1016/j.jorganchem.2004.10.014>

Related Products

N,O-Protected nucleosides for DNA and RNA fragment synthesis:

Bz-DMT-dC (= <i>N</i> ⁴ -Benzoyl-5'- <i>O</i> -(4,4'-dimethoxytrityl)-2'-deoxycytidine)	1g / 5g [B3087]
DMT-T (= 5'- <i>O</i> -(4,4'-Dimethoxytrityl)thymidine)	5g / 25g [D3566]
Bz-DMT-dA (= <i>N</i> ⁶ -Benzoyl-5'- <i>O</i> -(4,4'-dimethoxytrityl)-2'-deoxyadenosine)	100mg / 1g [B3103]
<i>i</i>Bu-DMT-dG (= <i>N</i> ² -Isobutyryl-5'- <i>O</i> -(4,4'-dimethoxytrityl)-2'-deoxyguanosine)	1g / 5g [I0697]

Activators:

5-(Benzylthio)-1<i>H</i>-tetrazole	25g [B3020]
4,5-Dicyanoimidazole	25g / 250g [D2026]
5-(Ethylthio)-1<i>H</i>-tetrazole	1g / 5g [E0670]

Ordering and Customer Service

TCI AMERICA

Tel : 800-423-8616 / 503-283-1681
 Fax : 888-520-1075 / 503-283-1987
 E-mail : Sales-US@TCIchemicals.com

TCI EUROPE N.V.

Tel : +32 (0)3 735 07 00
 Fax : +32 (0)3 735 07 01
 E-mail : Sales-EU@TCIchemicals.com

TCI Deutschland GmbH

Tel : +49 (0)6196 64053-00
 Fax : +49 (0)6196 64053-01
 E-mail : Sales-DE@TCIchemicals.com

Tokyo Chemical Industry UK Ltd.

Tel : +44 (0)1865 78 45 60
 E-mail : Sales-UK@TCIchemicals.com

TCI Chemicals (India) Pvt. Ltd.

Tel : 1800 425 7889 / 044-2262 0909
 E-mail : Sales-IN@TCIchemicals.com

梯希爱(上海)化成工业发展有限公司

Tel : 800-988-0390 / 021-67121386
 Fax : 021-6712-1385
 E-mail : Sales-CN@TCIchemicals.com

TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878
 E-mail : globalbusiness@TCIchemicals.com

Availability, price or specification of the listed products are subject to change without prior notice. Reproduction forbidden without the prior written consent of Tokyo Chemical Industry Co., Ltd.