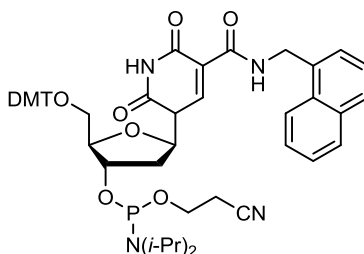


**Nap-dU CEP**  
**Product No. BA 0413**

***Product Information***



$C_{51}H_{56}N_5O_9P$   
Mol. Wt.: 914.01

Aptamers are oligonucleotides that bind their selected targets with high affinity and specificity, and are used in a wide range of applications including affinity chromatography, biomarker identification and image microscopy. A new class of aptamers called SOMAmers (Slow-Off-rate modified aptamers) has recently been reported.<sup>1</sup> This class is characterized by novel base modifications that provide increased hydrophobic interactions with targets leading to better binding and slower off-rates.<sup>2</sup> In addition, the base modifications impart increased resistance against degradation by serum endonucleases. Gupta, et al. have prepared new SOMAmers containing Nap-dU and Bn-dU modifications that bind Interleukin-6 with high affinity and block its interaction with the Interleukin-6 receptor.<sup>2</sup> Gelinas, and Davies *et al.* have reported the crystal structure of an optimized Nap-dU containing aptamer with Interleukin-6.<sup>3</sup> We offer Nap-dU CEP (**BA 0413**) which can be smoothly and efficiently incorporated into oligonucleotides *via* standard synthesis.

**Use:** Dissolve the phosphoramidite in acetonitrile at concentrations recommended by the synthesizer manufacturer. Coupling should be carried out using standard instrument protocols. Cleavage from the solid support can be carried out under standard conditions, and standard deprotection conditions may be employed.

## References:

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2. Gupta, S.; Hirota, M.; Waugh, S.; Murakami, I.; Suzuki, T.; Muraguchi, M.; Shibamori, M.; Ishikawa, Y.; Jarvis, T. C.; Carter, J.D.; Zhang, C.; Gawande, B.; Vrkljan, M.; Janjic, N.; Schneider, D.J. *J. Biol. Chem.* **2014**, *289(12)*, 8706-8719.
3. Gelinas, A.D.; Davies, D.R.; Edwards, T.E.; Rohloff, J.C.; Carter, J.D.; Zhang, C.; Gupta, S.; Ishikawa, Y.; Hiroto, M.; Nakaishi, Y.; Jarvis, T.C.; Janjic, N. *J. Biol. Chem.* **2014**, *289(12)*, 8720-8734.