

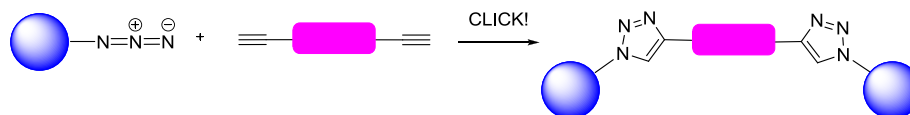
## Synthesis of new 1,2,3-triazolyl glycohybrids via click chemistry

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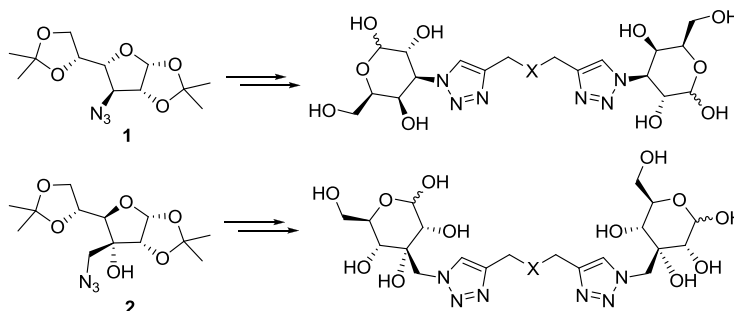
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Oligosaccharides and glycoconjugates have integral part in many biological processes. Carbohydrates are the main energy source in living organisms; they play important roles in cellular recognition processes and have relevant effect on the immune response and viral infections.

Since the discovery of copper catalyzed azide – alkyne cycloaddition (CuAAC) independently by groups of M. Meldal<sup>1a</sup> and K. B. Sharpless<sup>1b</sup> many triazole-carbohydrate conjugates with different biological activities have been prepared.<sup>2</sup> We would like to report here synthesis of a series of 1,2,3-triazole-linked disaccharides that are obtained by well-established CuAAC approach.



Efficient Cu(I)-catalyzed cycloaddition between diacetone-D-galactose and diacetone-D-allose derived azides **1** and **2** and different diynes with following removal of protecting groups gave novel stable and water soluble triazole-linked disaccharides.



Commercially available 1,n-diynes or 2,2-dipropargyl dimedone, 5,5-dipropargyl Meldrum's acid, 3,3-dipropargyl barbituric acid and dipropargylic ether of ethylene glycol were used as precursors for extended linkers.

- 1) (a) Tornøe, C. W.; Christensen, C.; Meldal, M. *J. Org. Chem.* **2002**, 67, 3057-3064. (b) Rostovtsev, V. V.; Green, L. G.; Fokin, V. V.; Sharpless, K. B.; *Angew. Chem. Int. Ed.* **2002**, 41, 2596-2599.
- 2) (a) Vijaya Raghava Reddy, L.; Venkat Reddy, R.; Mishra, N. N.; Shukla, R. K.; Yadav, G.; Srivastava, R.; Shaw, A. K; *Carbohydr. Res.* **2010**, 345, 1515-1521. (b) Dedola, S.; Hughes, D. L.; Nepogodiev, A. A.; Rejzek, M.; Field, R. A.; *Carbohydr. Res.* **2010**, 345, 1123-1134. (c) Anand, N.; Jaiswal, N.; Pandey, S. K.; Srivastava, A. K.; Tripathi, R. P.; *Carbohydr. Res.* **2011**, 346, 16-25.