structural organization of the receptor with its three separate ligand-binding sites[4].

Conclusion

In the course of this work, we prepared oligosaccharides containing 2-acetamido-2-deoxyglucopyranose and 2-acetamido-2-deoxygalactopyranose units and tested them for binding to NK cell receptors NKR-p1 and CD69. Branched oligosaccharides are first effective mimetics of natural ligands of CD69. We successfully completed the synthesis despite some challenging problems (multiple glycosylations, H-bonds), and we also obtained results, which contribute to the understanding of a relevant biological question.

Aplicability and perspectives

Although the synthesized oligosaccharides were specifically designed as ligands for lectin receptors of NK cells, they may have other uses too. We intend to introduce linkers to the reducing position of the oligosaccharides to enable their presentation on dendrimeric structures. These multiple glycodendrimers can substitute natural multiantenar ligands. Moreover, oligosaccharides of this type might be used as a part of vector systems of new generation targeted combined chemo- and immunotherapeutics.

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