

Supporting Research Data to *Chemoenzymatic Synthesis of Sialic Acid Derivatives Using Immobilized N-Acetylneuraminate Lyase in a Continuous Flow Reactor*

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1. Introductory information

Title of the dataset: Chemoenzymatic Synthesis of Sialic Acid Derivatives Using Immobilized N-Acetylneuraminate Lyase in a Continuous Flow Reactor

Description: NMR research data related to a continuous flow process involving N-acetylneuraminate lyase (NAL) immobilized on Immobead 150P to prepare Neu5Ac derivatives. Batch experiments with Immobead-NAL showed equal activity as the native enzyme. By using a fivefold excess of either N-acetyl-D-mannosamine (ManNAc) or pyruvate the conversion and isolated yield of Neu5Ac were significantly improved. To further increase the efficiency of the process, a flow setup was designed providing a chemoenzymatic entry into a series of N-functionalized Neu5Ac derivatives in conversions of 48-82%, and showing excellent stability over 1 week of continuous use.

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2. Methodological and data-specific information

Information on method description, instrument descriptions and software used are all included in the journal publication (<https://doi.org/10.1002/adsc.201900146>)

3. Sharing and Access information

Licenses or restrictions placed on the data: CC-BY-NC-SA