



Showcasing research from Professor Rosenthal's laboratory, School of Science, Constructor University, Bremen, Germany and the Chair of Bioprocess Engineering, Department of Biochemical and Chemical Engineering, TU Dortmund University, Germany.

Development of a multi-enzyme cascade for 2'3'-cGAMP synthesis from nucleosides

Cascades allow multi-step reactions in a single pot without the need for intermediate purification. A five-enzyme cascade was developed for the formation of cyclic 2'3'-GMP-AMP (2'3'-cGAMP) from adenosine and guanosine in seven reaction steps. By investigating the substrate scope of kinases and combining them, an overall conversion of 57% of guanosine into 2'3'-cGAMP was achieved.

As featured in:



See Katrin Rosenthal *et al.*, *Catal. Sci. Technol.*, 2024, **14**, 3335.