

Heterobifunctional crosslinkers

Heterobifunctional crosslinker

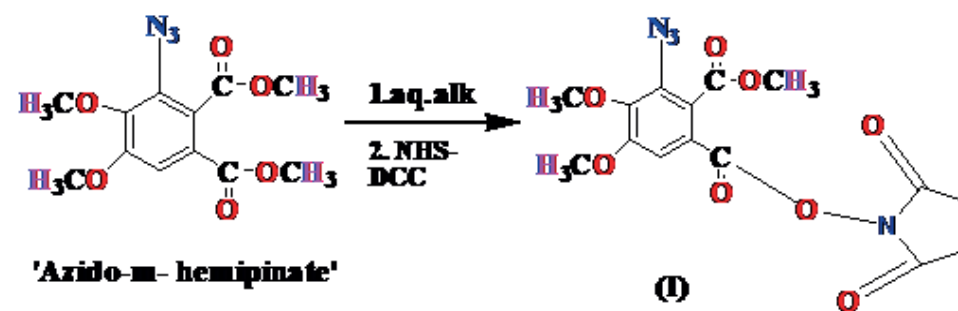
Name

Aryl azido-N-hydroxysuccinimide heterobifunctional crosslinker

Status

Available for development and commercialization

Chemical Structure



Sectors of Application

- Applications in studies on protein-protein interaction
- Application in material science
- Application in biological science

Summary

It is expected to help in preparing monoclonal antibody-drug conjugates, which specifically target tumor cells ("20th Century magic bullets" for cancer treatment). Recently, it has been shown that combining cryo-electron microscopy (cryo-EM) with chemical crosslinking will pave the way for highly efficient in vivo studies.

Additional Information

• Thakur S K, **Eswaran S V (2018)** ESI-MS and Stavrox 3.6.0.1 Investigations of Crosslinking by an Aryl-Azido-NHS Heterobifunctional Crosslinker. *Journal of Analytical & Bioanalytical Techniques*. 9: 1000402

Heterobifunctional crosslinker

Name

2-Azido-3-methoxy-benzoic acid-2, 5-dioxo-pyrrolidin-1-yl ester

Status

Available for development and commercialization

Chemical Structure



Sector of application

- Applications in studies on protein-protein interactions
- Application in material science
- Application in biological science

Summary

These new crosslinker is based on the methoxy analog of 3-hydroxy antranilic acid, 3-(HAA) a break down product of Tryptophan in the human body/brain.

Additional information

• Sujeet Kumar Thakur, Mitul Srivastava, Ankur Kumar, Renu Goel, Shailendra Asthana, **Sambasivan Venkat Eswaran (2019)** A Multidimensional Approach to Explore the Use of a Small Hetero-bifunctional Crosslinker based on a Metabolite of the Kynurenine Pathway, *J Proteomics Bioinform* 12: 010-0017.

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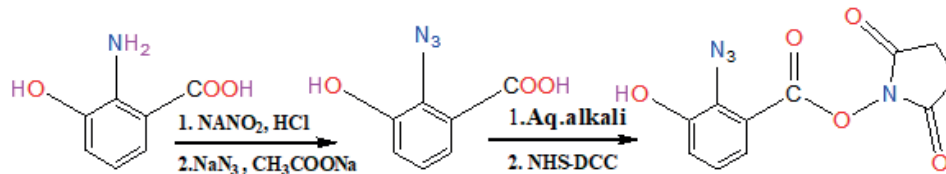
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Summary

The new crosslinker could also find application for treating keratoconus, a disease affecting the human cornea.

Additional Information

Sujeet Kumar Thakur, Shreya Pal, Ankur Kumar, Renu Goel, **Sambasivan Venkat Eswaran (2018)** ESI-MS-Bioinformatics Studies on Crosslinking of α A-Crystallin and Lysozyme using a New Small Aryl Azido-N-Hydroxy Succinimidyl Heterobifunctional Crosslinker based on a Metabolite of the Alternative Kynurenine Pathway; Implications for the role of α A-Crystallin in chaperoning mechanism and Cataractogenesis, *J Proteomics Bioinform* 12: 010-0017.