

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 07 028

Date of issue 2007-04

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Title (English)

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Chromatographic studies of aggregation of human plasma IgG and characterization of aggregates

Title (Swedish)

Abstract

Protein aggregation is of great interest when developing therapeutical proteins mainly because of its ability to induce an unwanted strong immune response. The aggregation process of human plasma immunoglobulin G was studied using size-exclusion chromatography (SEC), self-interaction chromatography (SIC) and chemical cross-linking.

An increase of weak interactions between the IgG molecules was observed at neutral or slightly alkaline pH. Both SIC and SEC indicated conformational transitions of IgG below pH 4.0 resulting in stable polymeric forms of IgG upon incubation. Cross-linked aggregates were purified and further characterized by various analytical techniques.

Keywords

Aggregation, immunoglobulin G, high performance liquid chromatography (HPLC), sizeexclusion chromatography (SEC), self-interaction chromatography (SIC), cross-linking, characterization

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| Project name | Sponsors |
| Language | Security |
| English | |
| ISSN 1401-2138 | Classification |
| Supplementary bibliographical information | Pages |
| | 44 |
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