Engineering Conferences International ECI Digital Archives

Cell Culture Engineering XV

Proceedings

Spring 5-13-2016

Separation of IgG glycoforms for biosimilars development using Fc gamma receptors as affinitybased chromatography ligands

Austin Boesch Dartmouth College, austin.boesch@gmail.com

Follow this and additional works at: http://dc.engconfintl.org/cellculture_xv Part of the <u>Biomedical Engineering and Bioengineering Commons</u>

Recommended Citation

Austin Boesch, "Separation of IgG glycoforms for biosimilars development using Fc gamma receptors as affinity-based chromatography ligands" in "Cell Culture Engineering XV", Robert Kiss, Genentech Sarah Harcum, Clemson University Jeff Chalmers, Ohio State University Eds, ECI Symposium Series, (2016). http://dc.engconfintl.org/cellculture_xv/241

This Abstract is brought to you for free and open access by the Proceedings at ECI Digital Archives. It has been accepted for inclusion in Cell Culture Engineering XV by an authorized administrator of ECI Digital Archives. For more information, please contact franco@bepress.com.

SEPARATION OF IGG GLYCOFORMS FOR BIOSIMILARS DEVELOPMENT USING FC GAMMA RECEPTORS AS AFFINITY-BASED CHROMATOGRAPHY LIGANDS

Austin Boesch Dartmouth College austin.boesch@gmail.com

Abstract: In biosimilars development, matching the glycosylation pattern of the innovator molecule can be a significant challenge in cell culture development. Here we present a novel downstream method using Fc gamma receptors as chromatography affinity ligands to separate monoclonal antibody glycoforms. Additional data is presented highlighting glycoform potentiation of effector functions such as antibody-dependent cellular cytotoxicity (ADCC) and phagocytosis which can be important mechanisms of action to consider in biosimilars development.