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Analytical Comparison of Infliximab and Related Biosimilars

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Monoclonal antibodies (mAbs) encompass a rapidly growing therapeutic market. While new antibodies are continually being discovered, expiring patents of the earliest antibodies have prompted generics, or biosimilars, to emerge. Because mAbs are such large proteins, creating an exact replica is nearly impossible. While the amino acid sequence remains largely the same, post-translational modifications (PTMs), like glycosylation, will vary depending on the cell line and manufacturing processes used. Because of these variations, it is necessary to fully characterize these new biosimilars. Here, we show an in-depth characterization of an antibody therapeutic mAb that recently came off patent, Infliximab, and other biosimilars. Finally, we demonstrate the utility of Phenomenex bioZen LC columns for the characterization of these antibodies.