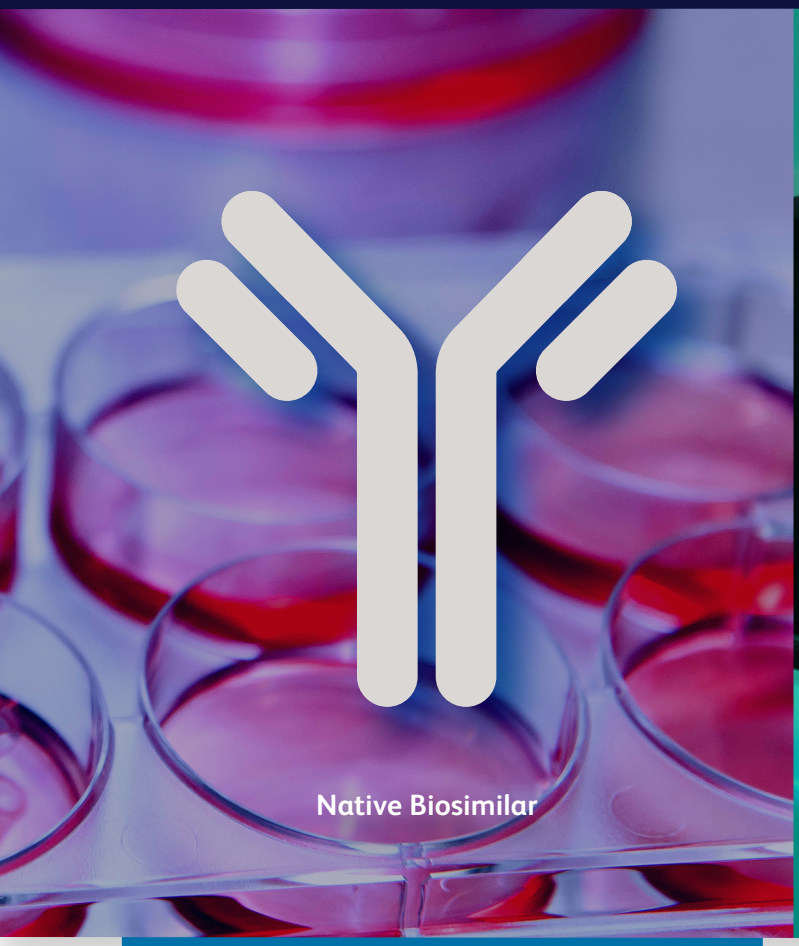
Biosimilar Antibodies for Immunotherapy Research and Development

Are you studying the mechanisms or effects of approved biologic drugs, but do not have access to the name-brand therapeutic? Research-grade biosimilars contain identical variable region sequences to FDA-approved antibodies. They can be used to model and study important features of their therapeutic counterparts.

BD offers two distinct versions of popular biosimilars to meet your specific application and need:



Native Biosimilar

Mutant Biosimilar

Wildtype Sequence, No Azide/Low Endotoxin

- Study mechanism of action of therapeutic antibodies
- Research potential new drug combinations
- Use as immunogen in the production of anti-idiotype antibodies

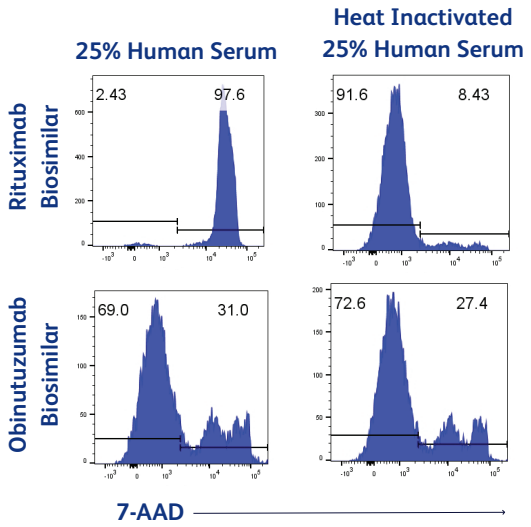
Fluorochrome-Conjugated, Mutated Fc

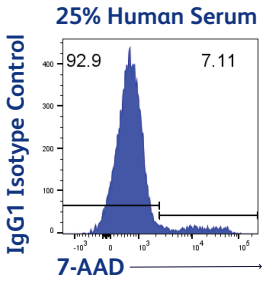
- Characterize target cells by flow cytometry
- Monitor epitope expression
- Simplify panel design with broad fluorochrome choice and low-background staining

BD

Wildtype Sequence, No Azide/Low Endotoxin

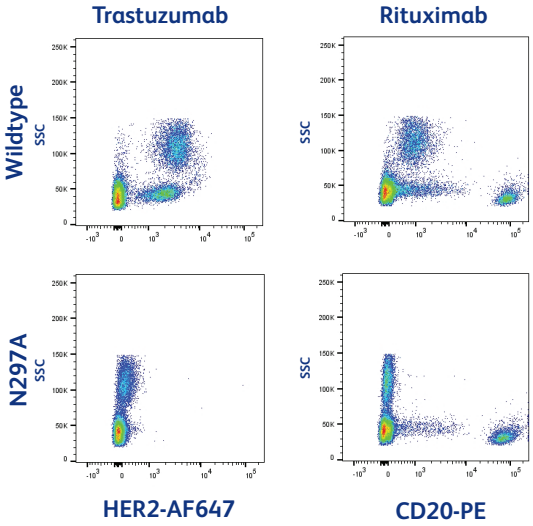
Biosimilars for Functional Studies. The rituximab biosimilar displays efficient complement-dependent cytotoxicity (CDC) in the presence of human serum that can be blocked by serum heat inactivation, as determined by flow cytometric analysis of 7-AAD incorporation (upper plots). In contrast, obinutuzumab exhibits low CDC activity, as it relies primarily on direct killing and/or antibody-dependent cellular cytotoxicity. Isotype control analysis was used to quantify basal cytotoxicity levels of the target Daudi cell line in the presence of serum (bottom plot).





Fluorochrome-Conjugated, Mutated Fc

Biosimilars for Target Detection by Flow Cytometry. Mutated Fc biosimilars result in less background staining in flow cytometry applications compared to the wildtype counterparts. Bottom plots show PBMCs labeled with the N297A mutants trastuzumab or rituximab. Upper plots show staining with the respective wildtype biosimilars and the impact of non-specific binding notably to monocytes.



Explore our complete offering of biosimilar antibodies at
bdbiosciences.com/biosimilar