

# Breaking the Barrier: Carrier-Free Antibodies

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Commercially available antibodies are routinely supplied in a phosphate buffered saline (PBS) solution with several carriers, such as bovine serum albumin (BSA), sodium azide, and glycerol. These additives are essential for preventing antibody contamination, preserving the antibody, and maintaining stability. For many laboratory techniques (immunohistochemistry, ELISA, Western Blot), these stabilizers do not interfere with immunodetection. However, some of these components may hinder conjugation to fluorophores, metals, and enzymes.

While BSA acts as a protein-stabilizing agent, it can reduce conjugation efficiency by competing with the primary antibody to bind to the label of interest. Sodium azide functions as a preservative but can be toxic to cells and interfere with conjugation. Therefore, in order to use these antibodies in bioconjugation techniques, some or all of these additives need to be removed from the antibody solution.

As fluorescent multiplexing and advanced mass cytometry have become increasingly valuable in areas such as cancer research, translational research, and drug discovery, the need for carrier-free antibodies has risen.

Biocare Medical now offers a comprehensive portfolio of high-quality antibodies that are:

- BSA-free, sodium azide-free, and glycerol-free; can be customized to any combination to meet exact specifications.
- Ready for conjugation to fluorochromes or metals
- Concentration of 1 mg/ml
- Purified IgG
- Available as RUO or IVD labeled antibodies
- Validated in relevant applications such as IHC

Biocare's carrier-free antibodies are ideal tools when developing multiplex assays where conjugated antibodies are needed. These technologies include cyclic immunofluorescence, multiplex IHC assays, and flow cytometry.

## Sample List of Biocare Antibodies Available in Carrier-free format\*

Antibody	Clone	Core Catalog Number
CD3	BC33	3170
CD8	C8/144B	3160
CD45RO	UCHL1	006
CD68	KP-1	033
PD-1	CAL20	3224
Sox10	BC34	3099

\*For a full list of our custom Carrier-free antibodies, please call Biocare at 800-799-9499.

To learn more about Biocare Medical's carrier-free offering, please call 800-799-9499 or visit our website: [www.biocare.net](http://www.biocare.net).