

Creative Biolabs Offers Custom Purification Strategies for Bispecific Antibody Research

Creative Biolabs serves a series of affinity purification methods for bispecific antibody research, covering protein A/G/L chromatography, tag-based purification, and a list of strategies especially for IgG-like BsAb purification.

New York City, New York Sep 6, 2022 ([Issuewire.com](https://www.issuewire.com)) - Bispecific antibodies (BsAbs), a novel pharmacological modality, have great potential for enhancing therapeutic efficacy by identifying and targeting two distinct antigens. BsAbs have far more promise than their parent monoclonal antibodies (mAbs) for tackling the multifactorial nature of complex diseases. However, this new method also presents unique challenges compared to mAb production, for example, for BsAb purification, there may be not just one right answer to which strategy to use.

To fully serve global clients' research on BsAbs, Creative Biolabs has been equipped to remain available to serve a series of affinity purification methods through multiple effective platforms. The flexible and effective [bispecific antibody purification](#) services include the following solutions.

- **Protein A/G/L Chromatography**

The scientist team has developed a single-step, Protein A chromatography process for BsAb purification in early screening. The team has achieved success in a number of previous cases to separate the BsAb from fragments, like individual heavy and light chain pairs. Other immunoglobulin-binding bacterial proteins, such as protein G and protein L, have also been used in BsAb purification and detection.

"Affinity chromatography can be used not only to isolate antigen-specific antibodies but also to separate certain contaminants from biological samples," said a senior scientist at Creative Biolabs, "by applying a pH gradient elution from pH 5.0 to 3.5, most of the fragments can be wiped off as early as the capture step. In the previous cases, [bispecific antibody](#) constructs were efficiently purified, showing over 90% purity and 85% yield in the downstream process."

- **Tag-Based Purification**

At Creative Biolabs, various labels have been developed for BsAb isolation and purification. For BsAbs without Fc regions, the expert team offers chromatography methods for different labels, covering His-tag, Flag-tag, Avi-tag, GST-tag, Sumo-tag, HA-tag, and c-Myc-tag, which will highly increase the output of purified BsAb products and meet unique demands in antibody purification protocols for different research purposes.

- **Methods for Reducing Impurities**

Creative Biolabs also has introduced a list of useful methods that can largely remove product-related contaminants in IgG-like BsAb purification. For example, KappaSelect works for scFv-Fc fusion, cation exchange (CEX) chromatography and anion exchange (AEX) chromatography work for unmodified BsAbs, and protein A chromatography, ion exchange (IEX) chromatography, hydrophobic interaction chromatography (HIC), hydroxyapatite (HA) chromatography, multicolumn countercurrent solvent gradient purification (MCSGP), and dual anti-idiotypic purification all work for homodimer.

Empowered by leading technical platforms and years of experience in BsAb, the expert team understands that chromatography is not one-size-fits-all and will help clients choose the matrix best suited for research application, ensuring streamlined process development, scale-up, and manufacturing without sacrificing purification performance.

More information can be found at <https://www.creative-biolabs.com/bsab/>.

About Creative Biolabs

With more than a decade of exploration and expansion, Creative Biolabs has been dedicated to offering services on antibody discovery, engineering, production, and analysis. Especially, the bispecific antibody (BsAb) team has gathered a collective of experienced scientists committed to providing high-quality services to customers all over the world, covering BsAb design, purification, engineering, manufacturing, and BsAb analysis service. Besides, a variety of standard or customized BsAb products are also available for different research applications.

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