

Engineer success with customized antibody solutions



Customized antibodies

Whether you're working in early discovery research or developing a new therapeutic or companion diagnostic, you need confidence that your antibody discovery project will deliver a high-performance reagent that fits your needs and transitions seamlessly for downstream use.

Working with Abcam's in-house custom antibody development team can deliver the antibody you need. We partner with customers at every stage of the discovery and development process to design and develop antibodies that take your project from research through to the clinic.

progress happens together
abcam

Why work with abcam?



Expertise

Industry expertise coupled with a multi-platform approach delivers tailored, high-performance antibodies. To date, we've used our expertise to deliver over 2,000 custom antibody projects.



Support

A dedicated project manager will work closely with you throughout and provide data-led support at critical decision points. A flexible, modular project structure provides regular review points, minimizes time and cost risks, and maximizes the chance of success.



Diagnostic development

Leverage our network of relationships with key diagnostic developers to transition the antibody into these platforms and reduce the burden of developing diagnostics.



Access to the global research community

Our access to the research community enables independent validation of your antibody if required.

Abcam's relationships with the research community have enabled the progression of complementary PD-L1 diagnostics

PD-L1 (73-10)

- Developed as a custom program for Merck
- Now on Leica Dx platform, catalog, and platform partner development

PD-L1 (SP142)

- Licensed from platform and development partner, Roche Ventana, to enable access to research community



PD-L1 (28-8)

- Developed as a custom program for Bristol-Myers Squibb
- Now on Dako FDA approved Dx, InCell Dx novel Dx modality, and catalog

PD-L1 (CAL10)

- Developed in biotech partnership
- Now in catalog, platform partner, and Dx development

Our customized antibody solutions

abcam can provide end-to-end antibody discovery support spanning antibody generation, selection, characterization, and manufacturing.

- 1 Custom antibody discovery**
Extensive expertise in antibody discovery, ranging from challenging targets such as post-translationally modified proteins and small molecules to the generation of anti-drug antibodies and potential therapeutic or diagnostic antibodies.
- 2 Antibody engineering**
We can enhance and improve the performance of pre-existing antibodies.
- 3 Assay development and target validation**
Using our comprehensive range of assay capabilities, we will design and execute an assay cascade relevant to your target, enabling you to identify promising leads. We can perform a wide range of assays for additional characterization and can provide target validation using CRISPR gene knock-outs.
- 4 Diagnostic development and commercialization support**
Leverage our relationships with diagnostic developers and ability to integrate seamlessly with GMP manufacturers for ease of transition.
- 5 Production supply security**
To support the continued progression of customer programs, Abcam can provide security of supply of the antibody over the lifetime of its use.

Enabling global research into Parkinson's disease: Michael J Fox Foundation



We partnered with the Michael J. Fox Foundation for Parkinson's Research (MJFF) to develop recombinant monoclonal antibodies against challenging targets such as LRRK2.

LRRK2 gene mutations are the most common cause of inherited Parkinson's disease. While it is the focus of intensive research in the Parkinson's field, a lack of high-quality LRRK2 antibodies has been a major roadblock to the successful development of LRRK2-based therapies.

After primary characterization organized by MJFF and feedback from the Parkinson's disease research community, three rabbit monoclonal clones exhibiting the best performance were selected for distribution via Abcam.



LRRK2 antibodies are critical to helping move Parkinson's research forward. The three unique clones chosen for initial release were identified based on several months of testing by our large network of Parkinson's researchers... we are excited that they [Abcam] will continue to help MJFF remove barriers to developing Parkinson's therapies.

Dr Mark Frasier

Vice President of Research Programs at MJFF

How we deliver the antibody you need

abcam leverages a portfolio of best-in-class antibody discovery and engineering platforms to create antibodies that meet the specific requirements of your project:

1. Highly sensitive and specific rabbit monoclonal antibodies

- Our platforms take advantage of the rabbit immune system's capability for diverse epitope recognition to develop antibodies to even the most challenging targets.
- Rabbit-derived antibodies are suitable for use in rodent models.



2. Optimum antibody selection and the discovery of rare binders to unique epitopes

- Through our NGS platform, we can perform population-based analyses at the single-cell level to allow the selection of target binders with native heavy and light chain pairing.
- Using proprietary bioinformatics, we can examine the depth and breadth of B cell response, guiding the rational selection of clones for testing and validation.



3. Optimizing antibody performance

- Our platforms, including phage display, are employed to engineer existing antibodies to enhance performance.



4. Toxic and non-immunogenic targets

- For in-vitro antibody generation, we combine our antibody discovery platforms to generate the highly sensitive antibodies that you need.



Supporting the acceleration of cancer research: Cancer Research UK



We partnered with Cancer Research UK for the development and commercialization of novel custom antibodies and other protein-based binding reagents against critical oncology targets.

As CRUK-funded researchers work to unravel some of the important targets and pathways involved in driving cancer they often reach a blockade as there are no commercial antibodies available that target the specific key protein that they need to study. Alternatively, those antibodies that are available do not perform in a required research application.

The antibodies resulting from this partnership will expand scientists' access to biological reagents, supporting research to further the understanding of cancer biology, help generate new diagnostic tools, and potentially be the basis for novel therapies.



We are excited to be partnering with Abcam to expand our access to biological reagents and to create the tools our scientists need to help accelerate our understanding of cancer. Abcam's antibody development capabilities and "end-to-end" expertise will help provide our researchers with antibody reagents that can be applied from early-stage R&D right through to the clinic.

Tony Hickson
CBO at Cancer Research UK

For more information, please contact us:

go.myabcam.com/custom-solutions

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