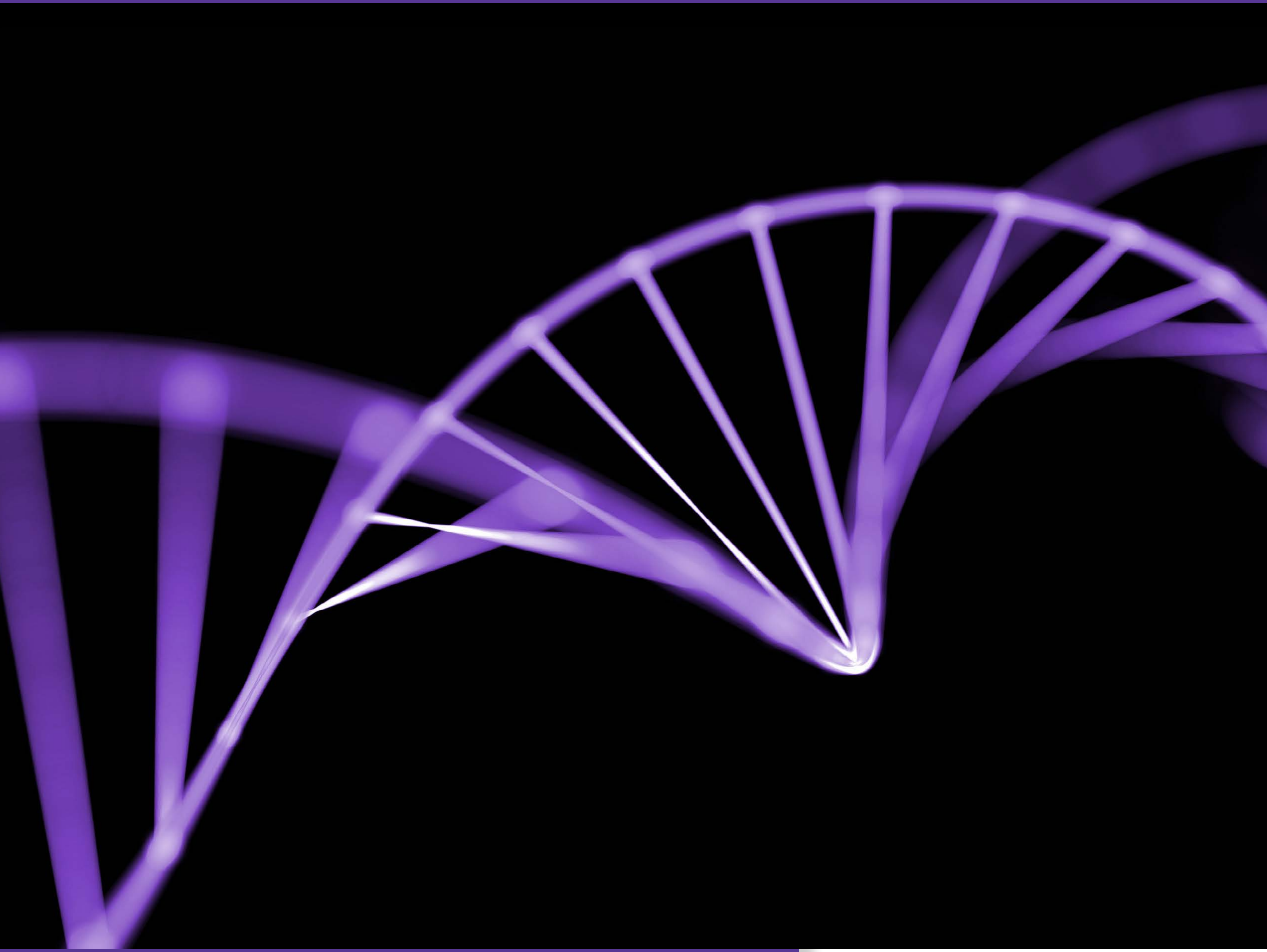
Recombinant Monoclonal Secondary Antibodies



Secondary Antibodies that are Second to None

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Recombinant Monoclonal Secondary Antibodies

Features and Benefits of Recombinant Monoclonal Secondary Antibodies

While traditional polyclonal secondary antibodies are still widely used for scientific research, demand for recombinant monoclonal secondaries is growing. This is due to the many advantages that recombinant monoclonal secondary antibodies afford, which include exceptional batch-to-batch consistency, more reproducible experimental results, and guaranteed long-term supply.

How are recombinant monoclonal secondary antibodies produced?

Recombinant monoclonal secondary antibodies are produced by sequencing an existing antibody clone and synthesizing it in an expression host. Mammalian expression hosts such as human embryonic kidney (HEK) or Chinese hamster ovary (CHO) cells are preferred over bacterial or insect systems since they can replicate the post-translational modifications and protein folding required for antibodies to function effectively.

Alternatively, recombinant monoclonal secondary antibodies can be produced via phage display. This involves immobilizing the target of interest on a solid surface and incubating it with a phage library, comprising large numbers of phages that each express a different antibody single-chain variable fragment (scFv). Once binding has taken place, the phages are eluted and screened to identify the highest affinity binders, then the antibody encoding DNA is expressed in a mammalian cell line.

What are the advantages of recombinant monoclonal secondary antibodies?

Recombinant monoclonal secondary antibodies offer several important advantages for scientific research. First, because the antibody DNA sequence is known, batch-to-batch consistency is guaranteed, assuring experimental reproducibility for a broad range of immunoassay applications. Knowing the DNA sequence also provides opportunities for engineering, such as to optimize antibody performance within a particular experimental setting.

Another major advantage of recombinant monoclonal secondary antibodies is that they reduce, or even eliminate, the need for animal use since they are produced using in vitro methods. In turn, this overcomes the problem of inter-animal variation (which can be especially challenging for researchers when an existing host animal dies and experimental protocols must be reoptimized) as well as providing significantly faster production times.

Further benefits of recombinant monoclonal secondary antibodies include their scalability, which assures continuous supply and makes them useful for long-term studies, and the level of precision and accuracy they afford. For example, by selecting for highly specific antibodies during the recombinant cloning process, it is possible to avoid unwanted cross-reactivities that might give rise to false positive results later on.

Description	Clone	Cat. No.	Qty
Mouse Anti-Rabbit IgG-UNLB (Recombinant)	2A9-R	24090-01	0.25 mg
Mouse Anti-Rabbit IgG-HRP (Recombinant)		24090-05	0.5 mL
Mouse Anti-Rabbit IgG-BIOT (Recombinant)		24090-08	0.25 mg
Mouse Anti-Human IgG Fc-UNLB (Recombinant)	JDC-10-R	29040-01	0.25 mg
Mouse Anti-Human IgG Fc-HRP (Recombinant)		29040-05	0.5 mL
Mouse Anti-Human IgG Fc-BIOT (Recombinant)		29040-08	0.25 mg
Mouse Anti-Human IgA_1-UNLB (Recombinant)	B3506B4-R	29130-01	0.25 mg
Mouse Anti-Human IgA_1-BIOT (Recombinant)		29130-08	0.25 mg
Mouse Anti-Human Lambda-UNLB (Recombinant)	JDC-12-R	29180-01	0.25 mg
Mouse Anti-Human Lambda-HRP (Recombinant)		29180-05	0.5 mL
Mouse Anti-Human Lambda-BIOT (Recombinant)		29180-08	0.25 mg

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