

## ZooMab® Antibodies FAQs

### Why are these called ZooMab® antibodies?

ZooMab® technology refers to the platform, the technology and feature set that comes exclusively with it. The technology to produce these antibodies is proprietary and entirely different from classical hybridoma fusion and selection technologies, which are defined and limited by the matched species-specific immortalized cell line it uses to produce the monoclonal antibody.

ZooMab® technology is not limited in that way and therefore has the potential to create a virtual “zoological” range of B-cell monoclonal antibody species.

### How do I know what species my ZooMab® antibody is?

Each ZooMab® antibody will have the species information on the label.

### How many species do you offer, or will you offer?

We are initially offering the ZooMab® platform for the highly desirable Rabbit recombinant monoclonal antibodies, but we have plans to launch additional species over time. Additionally, we would love to hear from you about what species and/or related targets to those species (or the current ZooMab® rabbit product line) you are most interested in and why. Please consider visiting our ZooMab® antibodies home page and provide your comments/questions there through the “Share Your Experience” link.

### Are ZooMab® antibodies sterile?

No, they are not sterile, but they are produced in a highly controlled, low bioburden development and manufacturing process to minimize concerns or risk of that nature. If you are planning to keep your “resuspended” ZooMab® antibody for an extended period (more than a month) in solution before use, you should refrigerate the resuspension as instructed. If you wish to keep it in that state for even longer you might consider including a biocidal reagent in your resuspension buffer or alternatively making aliquots and freezing them.

We specifically designed ZooMab® antibodies to be provided in the pre-aliquoted 25 µL equivalents to minimize the need for biocidal reagents. Pre-aliquoted equivalents allow you to resuspend and use the amount you will need in the near term, thus reducing product waste and maintaining the remainder of your purchase (other 25 µL tubes) in their lyophilized, maximum stable condition until you are ready to use it.

### Can I use ZooMab® antibodies in combination with other vendor antibodies or in matched pairs?

Yes, these will work as any other antibody would in that you would still need to titer the ZooMab® antibody for its reactivity in the context you intend to use it. Matched pairs are a function of epitope interference and empirical testing much like any other antibody you might try to use in combination.

### Can I use any anti-rabbit secondary antibody to detect ZooMab® antibodies?

Yes, you can. However, you might consider using an anti-rabbit-Fluor labeled antibody that we ourselves have used in routine testing and recommend for ZooMab® antibody usage.

### I received a ZooMab® antibody that says it is lyophilized, but the pellet looks “jelly” or “resin”-like, is this ok?

This is not a problem. We have rigorously tested ZooMab® antibodies post-lyophilization, including cases where the pellet may appear in this way, and the results are indistinguishable from one another. Regardless of the pellet appearance we always recommend that you take care to gently mix the contents of the tube once or twice following resuspension to make sure the liquid has been in contact with the antibody as this very simple type of mild agitation ensures good resuspension.

### My ZooMab® antibody order arrived in a pouch at room temperature with no cold packs but the Data Sheet says to store it at 4°C or -20°C, is that correct?

That's correct. For safest long-term storage we recommend lower temperatures to ensure maximum environmental control, however the lyophilized product is robust and stable at room temperature if the tube is unopened or the contents have not been resuspended.

### Is the cap air-tight/water-tight?

The cap was specifically chosen to include a vapor-proof o-ring, which keeps moisture out of the tube for maximum stability; however, we always recommend precautions to ensure the tube is unopened and/or not exposed to extreme conditions prior to use.

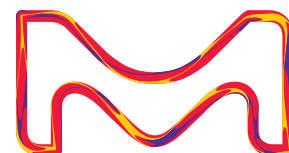
### Some of my ZooMab® antibodies came in zip lock pouches but some did not. Are they ok?

Yes, they are fine. There is no need to have the tubes in a single pouch. The higher pack sizes were specifically designed to be the equivalent of multiples of the same base unit of 25 µL as we indicate on the Product Definition Page (PDP) on our website and literature. For 100 µL you are receiving 4 x 25 µL.

**NOTE:** See potential lot number question related to this question below.

### Why are some of my ZooMab® antibody orders different lot numbers? Can I get uniform lot numbers?

You should treat each tube as its own product as it has been designed. As such, it has a unique lot number assigned to it on its label which is tied directly to the manufacturing lot from which it was created. As an



example, a 100 µL order of ZooMAB® antibody will arrive as 4 x 25 µL (four tubes). ZooMAB® antibodies are lot number-controlled products; however, it is possible that each tube may have its own lot number on its respective label. Because each product is designed, manufactured and calibrated in the same consistent high-quality manner, lot-to-lot variation is extremely low. We also provide customers with the option to call in to our customer service directly to request and receive antibodies from the same lot number.

### What is the purpose of the QR code on the tube?

Every ZooMAB® antibody has a QR code (a 2-D matrix barcode) on its label which when scanned will direct you to our ZooMAB® Central Information Site on [SigmaAldrich.com](http://SigmaAldrich.com). Simply scan the QR code using your tablet or phone and it will open the product specific web link. There you will find information regarding the ZooMAB® technology, ZooMAB® products (new products listed monthly), and ZooMAB® news. You will also find an interactive link there to submit any feedback or user experiences you might want to share with your ZooMAB® community for everyone's benefit. We promise to look at all inputs and reply as soon as we can.

### How long should I wait or how much agitation should I use to resuspend the pellet without damaging/denaturing the antibody?

A simple flick or two with your finger like you would do if you were resuspending an oligonucleotide that you'd received in a lyophilized pellet. We recommend waiting for 5–10 minutes after resuspension and flash microfuge spin afterward to bring the liquid to the bottom of the tube.

### What if I resuspend my ZooMAB antibody in a volume 10X the recommended amount? Will it be less stable at that low concentration without adding a preservative like BSA?

The antibody should still be as stable at 1/10 the dilution as it would be at the 25 µL recommended resuspension volume. We recommend the 25 µL resuspension volume as the base working stock volume for many reasons that include easy calibration to the recommended titers we provide. It is often too easy to forget what your stock concentration was if you are inconsistent with how you create it.

Also consider that since the antibody is typically recommended for use at 1:1000 dilution (which is another 100-fold more dilute than the 1/10 dilution) when used in applications like Western blotting, which is itself a long incubation, the antibody should be stable. We always recommend creating the same stock concentration on the label.

### How stable is my ZooMAB® antibody after I resuspend it?

The stability and handling recommendations are indicated on the Certificate of Analysis (CoA) that is provided with each product, the product-specific page on the website, and the ZooMAB® microsite which you can easily visit using the QR code that we include on the label.

**NOTE:** The power of our uniform design, manufacturing, and final formulation processes allow for an easy reminder and guidance on product handling for all ZooMAB® antibodies from a single web page. Individual ZooMAB® application-specific titers and performance are unique to each antibody. Please see the CoA or Product Page for those product specific pieces of information.

### If I resuspend my ZooMAB® antibody in PBS, MOPS buffer, or TE, will there be a problem?

No, there should be no problem with these alternative buffers; however, we have not tested all variety of buffer conditions that you may want to use or try. We have performed rigorous testing for the recommended uses that we have provided.

### If I add an antimicrobial agent or BSA to my ZooMAB® antibody will it interfere with performance?

No, there should be no problem with adding these biocides or BSA; however, we have not tested all variety of biocidal reagents and associated conditions that you may want to use or try. We have performed rigorous testing for the recommended uses that we have provided.

### How much material should I use to directly conjugate ZooMAB® antibodies?

Since there are many conjugation dyes and methodologies available today, you will have to determine that empirically based on the protocol/dye you wish to use. As ZooMAB® antibodies are specifically designed and chosen to have much higher intrinsic specific activity (binding affinity per µg), compared to conventional antibodies, the amount of material in any single tube is similarly of lesser quantity as compared to conventional antibodies. This higher specific activity typically means much higher signal to background performance for great data. Therefore, the amount of material of any chosen ZooMAB® antibody can be determined using the concentration statement on the product CoA. You will then need to calibrate that amount or the combined amount of a larger pack size to the starting requirements of your conjugation protocol and empirically test the yield and performance of the method you have chosen to use.

### Is the same amount of material in every ZooMAB® antibody?

The amount in any ZooMAB® antibody is based on titering for performance in the minimum three key applications; Western blot, IF, and top application used for the target as cited in published use cases. As a result, each ZooMAB® antibody will have a calibrated amount in each tube. The calibrated amount of antibody will be consistent for every lot of that antibody because it is intrinsic to the ZooMAB® antibody technology itself, not our manufacturing process. Please refer to your ZooMAB® product CoA to determine the concentration/amount of material for your specific ZooMAB® antibody.

### What is the Fc domain sequence of my ZooMAB® antibody?

It is at its core the same as a Rabbit Fc domain associated with our proprietary recombinant expression system; however, we cannot provide specific sequences.

### What is the binding domain sequence of my ZooMAB® antibody?

Due to the proprietary nature of that information we are unable to provide specific binding domain sequences.

### What is the sequence of the antigen/immunogen used to make this ZooMAB® antibody?

Please see the CoA or Product Page for your ZooMAB® antibody.

### How are ZooMAB® antibodies different from other recombinant rabbit monoclonal antibodies that I currently use?

ZooMAB® antibodies are based on a proprietary B-cell immortalization and recombinant expression platform and offer an entirely new ecosystem for antibody performance and ordering convenience compared to antibodies produced using conventional technologies.

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