

Antibody Storage

www.dauids-bio.com (Custom Antibodies)

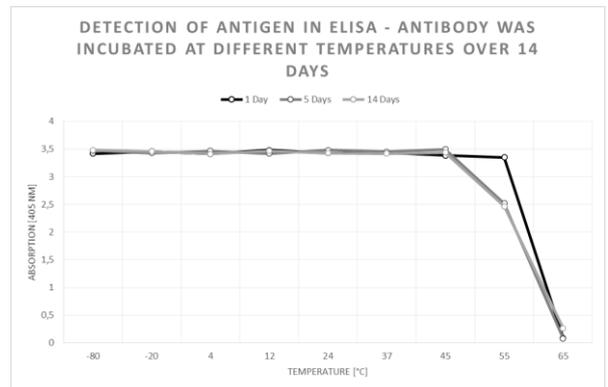
www.dauids-science.de (Lab Material)

- 1 - Introduction

Proper storage of antibodies is crucial for preserving their stability and functionality. Generally, antibodies are highly durable. However, it is advisable to store them at temperatures ranging from 2 to 8°C. Dauids conducted a stability test on various antibodies, subjecting them to temperatures ranging from -80 to 65°C. Temperatures up to 45°C did not lead to a loss in activity after 14 days.

The antibodies generally maintained their activity when frozen once with cryoprotective substances. Repeated freezing and thawing cycles resulted in a loss in their activity.

When antibodies are shipped with cool packs, their activity persists even when exposed to room temperature for several days.



- 2 - Material

Material

Possible Cryoprotective Agent	50% high-purity Glycerol (v/v)	Please note that Glycerol can disturb in some applications
Possible Stabilizing Agent	0.1 – 1 % BSA 5 – 10% Sucrose 5 – 10% Trehalose	Please only use one of the stabilizing agents. Please note that some of these agents may disturb in your applications.
Preservation	0.02– 0.1% Na-Azide Thymol Sterile filtered antibodies	Please only use one of the preservatives. When you work with sterile filtered antibodies, please keep them under sterile conditions.

- 3 - Handling of antibodies

Information	Protocol
Shipping of antibodies	To avoid excessive temperatures, antibodies are shipped with cool packs. When the antibodies arrive in your lab, we recommend storing them at 2 - 8°C. Even when the antibodies are held at room temperature for a short time, they retain their activity.
Avoid freezing-thawing cycles	<p>Most antibodies are quite temperature stable when it comes to room temperature. Though several freezing-thawing cycles or freezing without a cryoprotective may drastically reduce antibody activity.</p> <p>During the freezing cycle, ice crystals may develop and reduce the activity of the antibodies. As a result, we propose testing with a small aliquot to see if the activity persists after freezing and thawing. If this is the case, you can aliquot and freeze the whole antibody. Please thaw each aliquot only once and store it at 2 – 8°C.</p>
Preparation of aliquots	Please aliquot at least 50 – 100 µl of your antibody solution. When you aliquot a smaller amount, proteins might attach to the storage vial, resulting in antibody loss.
Removal of Na-Azide from an antibody solution	Sodium Azide is commonly used to preserve antibodies. Na-Azide may cause issues in different applications. Especially if the antibodies are to be used in in vivo experiments. Please specify that you do not want Na-Azide at the start of the vaccination process. We can avoid using Na-Azide in this scenario. If you have an antibody solution containing Na-Azide and wish to remove the preservative, just dialyze the antibodies or perform a buffer exchange.
Storage of antibodies in the fridge	Antibodies can be stored in the refrigerator for several weeks. Please ensure that the antibody fraction is preserved or sterile filtered.
Storage of antibodies in the freezer	<p>If you wish to keep your antibodies for a long period, test with a small aliquot to see if they are stable after freezing and thawing. If you want to keep the antibodies at -20°C, add a cryoprotective to avoid ice crystals during freezing. Antibodies should not be stored in No-Frost freezers.</p> <p>Please keep in mind that the preparation of the antibodies with a cryoprotective results in a lower concentration. You may need to adjust the dilution factor when you use the antibodies in your applications.</p>
Storage at -80°C	The antibodies should not be stored at -80°C.