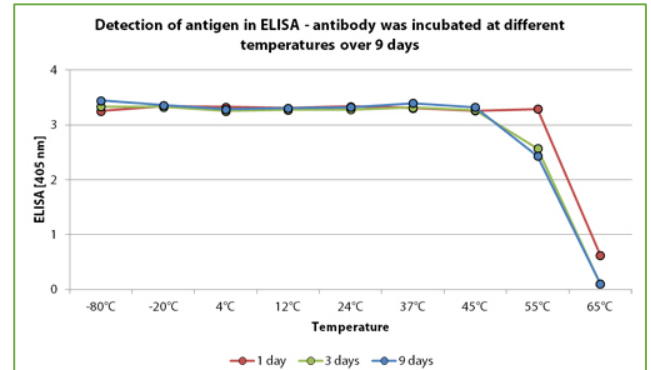


## Antibody Storage

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### Introduction

Antibodies are usually very stable. We made several tests to determine the activity of antibodies after incubation at different temperatures. It turned out that most antibodies remained activity after at least one week of 37°C incubation. Temperatures higher than 50°C are not tolerated by the antibodies. In addition, freezing and thawing antibodies led to a loss in reactivity. For this reason, we recommend to aliquot the antibodies when you want to freeze them.



### Material

Name	Ingredients
<b>Cryoconservation</b>	50% Glycerol
<b>Preservation</b>	0.02% Na-Azide

### Method

#### Shipping of antibodies

Shipping of antibodies is done with cool packs to avoid extreme temperatures. We recommend storing the antibodies at 2 – 8°C upon arrival. Even when the antibodies are kept at room temperature for a brief period, the antibodies keep activity (see graph above).

#### Avoid freezing-Thawing Cycles

Most antibodies are very stable concerning the temperature. Though multiple freezing-thawing may decrease the activity of the antibodies significantly. Ice crystals may form during the freezing cycle and reduce the activity of the antibodies. For this reason, we recommend testing with a small aliquot if the activity remains after freezing thawing. If this is the case, you can aliquot and freeze the complete antibodies.

#### Aliquotting

Please aliquot at least 50 – 100 µl solution. When you aliquot a smaller amount, proteins can bind to the storage vial and you may lose antibodies.

#### Remove Na-Azide from antibody solution

Antibodies are usually stored with Na-Azide to preserve them. In some applications Na-Azide disturbs. Especially when you want to use the antibodies in *in vivo* experiments. Please indicate that you don't want Na-Azide at the beginning of the immunization steps. In this case we can avoid adding Na-Azide. If you have an antibody solution with Na-Azide and you want to get rid of the preservative, you can just dialyze the antibodies.

### *Storage of antibodies in the fridge*

Sodium Azide is a preservative to prevent bacterial growth in the antisera. You can add sodium azide to your antibody fraction to enhance the storage life. Try to avoid adding preservatives when you want to use the antibodies in cell culture assays or similar applications. You can easily remove sodium azide by dialysis. Antibodies are stable for several weeks in the fridge.

### *Storage of antibodies in the freezer*

If you want a long-time storage of your antibodies, test with a small aliquot if the antibodies are stable after freezing-thawing and aliquot them.

If you want to store the antibodies at  $-20^{\circ}\text{C}$ , you can add glycerol (50%) to avoid ice crystals when you freeze the antibodies. Please add high pure glycerol to the antibodies as small impurities may lead to a loss in function of the antibodies. Please do not store glycerol antibodies at  $-80^{\circ}\text{C}$ . Please note that the dilution of the antibodies with glycerol lead to a smaller concentration. You may need to use the antibodies in a smaller dilution in your applications.

Please do not store antibodies in No-Frost freezers.