

Tab. 1: Serum-thawing times for different filling quantities

Thawing	Thawing times		
	100 ml	500 ml	1000 ml
1. Thawing up to a formation of a liquid film at room temperature	35 min	90 min	120 min
in a water bath at +15 – +20 °C	5 min	18 min	35 min
2. Following time for warming up to +20 °C in the water bath	15 min	25 min	45 min
3. Following time for warming up to +37 °C in the water bath	20 min	35 min	40 min
The bottles should be immersed in the water bath up to the serum level in the bottle. During warming, the content should be mixed by rotating slowly (do not shake to prevent formation of foam).			

Re-freezing of sera:

Sera should be frozen quickly. A pre-cooling at +2 – +8 °C is recommended. Frequent freezing and thawing cycles have to be avoided: preferably aliquote after first thawing.

Tab. 2: Sera freezing duration (initial temperature approx. +20 °C)

Freezing	Volume		
	100 ml	500 ml	1000 ml
with pre-cooling to +2 – +8 °C	120 min	180 min	210 min
without pre-cooling	150 min	225 min	270 min

- **Heat inactivation**

Sera are undefined natural products. As such, in addition to containing growth-promoting substances they can also contain undesirable components (e.g. complement system).

In order to reduce the content of interfering substances, many experimental procedures stipulate inactivation of the serum prior to use, using the so-called “heat inactivation” process. The serum is normally heated to +56 °C for 30 minutes.

- **Request for samples to test new batches**

Please fill in the form to request samples (see appendix) and send it to us via fax.

Or request samples online: fill in the form www.biochrom.de/products/sera/sample-order-fbs.