

# Technical data sheet Serum

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## Heat Inactivated treatment on sera

CAT N°: SxxxH

For heat inactivated product the **letter H** is added at the end of the regular CAT  $n^\circ$  serum

(minus last digit)

E.g.: S0900 => S090H

### **Analyses:**

Tests and results are recorded on CoA.

#### **Treatments:**

Sera are heat inactivated to inactivate complement. The complement can lead to complement-mediated cell lysis. Immunological studies justify the need to heat inactivate the serum. The treatment is a heating of the serum at 56°C for 30 minutes.

This treatment can modify the colour of the serum. This is normal and it does not compromise the quality of the product for the cell culture.

Note: To heat the serum during a long period can reduce or destroy the growth factors. It can also increase the build of precipitates that are frequently confounded with contamination.

#### **Effects of the heat inactivation:**

- Destruction of proteins
- Precipitation of fibrin
- > Destruction of fibrinogen
- > Deterioration total or partial of vitamins
- > Decrease of the growth factors concentration
- > Destruction of the LDH
- ➤ Decrease of the amylase concentration
- Destruction of the alkaline phosphatase
- Deterioration of the IgG, IgE, IgM
- > Inactivation of viruses
- ➤ Inactivation of T4 Phage
- ➤ Inactivation of mycoplasma
- ➤ Increase of oxidation and catalysis reactions.

#### **Remarks:**

All other parameters than the ones mentioned above remain equal and can be find in each regular (non-treated) serum TDS.