

RECOMMENDATIONS ON THE BACTERIOLOGICAL AND CHEMICAL QUALITY OF WATER USED FOR ROUTINE ELISA ANALYSIS

When techniques are performed under accreditation programs, laboratories are asked to ensure that the water used allows for satisfactory implementation of the technique.

The table below includes a summary of recommendations for water quality for ELISA testing:

Information	Response (please specify the tolerance margins if necessary)	Comments
Water quality (osmosis, distilled, demineralized, etc.) Please specify any special conductivity recommendations.	Osmosis water quality: less than 50 μS at 25°C. If no lab-grade purified water is available, demineralized water (commercially available in supermarkets as water used for ironing in homes) or low salt mineral water can be used.	More important than the total resistivity, what counts is the absence of divalent cations. At Innovative Diagnostics, we use ultra-pure water with a resistivity greater than 18 MOhms. <i>(higher resistivity means fewer charge-carrying ions)</i>
Recommended bacteriological qualities.	Less than 1000 CFU/mL (Colony Forming Unit)	The number of germs depends greatly on the water storage time. In ion exchange resin systems, it is strongly recommended to install a sterilizing filter at the outlet and in loop distributions, an in-line sterilization system.
Recommended chemical qualities. (pH, etc.)	pH should be between 4.8 and 8.5 and the hardness of the water should be zero (Th = 0).	Please note that the pH of purified water is of little significance, as it has no buffering capacity. It can be modified by absorption of glass carbonate or other environmental parameters and immediately corrected by dilution in the wash solutions.

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