

## Experiment Tips: 18 General Rules for ELISA Experiments

The conditions required for the operation of ELISA experiment are relatively strict, both for the hardware conditions of the experiment and the technical requirements of the experiment operators. The following are some of the problems to pay attention to when performing ELISA experiments.



### 18 General Rules for ELISA Experiments

1. To ensure the accuracy of the pipette gun, the error should not exceed 2%. It can be determined with water and electronic balance. It is best to have a professional make corrections.
2. To be equipped with one each of 20ul, 50ul, 100ul, 1000ul and row guns. Change the lance after aspirating different liquids. Even when aspirating standards.
3. It is important to remove the kit from the refrigerator 1 hour before the experiment to bring all the various reagents back to room temperature for more stable results.
4. When experimenting, keep the TMB Substrate away from light.
5. The gun should not be used to aspirate liquids too fast, so as not to create bubbles and make the amount aspirated inaccurate.
6. When aspirating liquids, use a gun with a range close to the amount needed to reduce errors.
7. When adding liquid to the enzyme labelled wells, avoid contact between the tip of the gun and the liquid in the wells, you can make the droplets on the tip of the gun and the walls of the wells come into contact with each other, and the droplets will flow down naturally.
8. After all the liquid has been added, the plate can be gently shaken parallel to the table for 30 seconds to mix the liquid. You can also use the shaking function of the enzyme-labeled instrument.
9. Seal the microplate with self-adhesive or tape paper to prevent evaporation of water during incubation.
10. When washing the plate, let it stand for 1 minute after each addition of wash buffer to make the washing more thorough. When a plate washer is not available,

after discard the liquid, the microplate should be patted dry vigorously on paper.

11. When the wash buffer is not enough, use distilled water to prepare PH7.4, 0.02M phosphate buffer, add 0.1% Tween 20 as the wash buffer. It can be stored for a long time after adding 1/1000 sodium azide.

12. The TMB Substrate is light sensitive and should be prepared on the spot before use.

13. Before testing, switch on the enzyme-labeled instrument and allow it to stabilise for 10 minutes or more.

14. The TMB Substrate is somewhat toxic and the stop solution is corrosive to the skin, contact should be avoided.

15. The sample to be tested should be clarified, otherwise it will affect the result.

16. Time of incubation should be adhered to as specified in the kit.

17. Experiments with duplicate wells should be done as much as possible so that the accuracy of the data can be guaranteed.

18. Samples with doubtful results are to be corroborated by other methods.