Exercise 1

Feb 28th 2025

Q1: Which one of the following options does **NOT** play a role in monoclonal antibody production by Hybridoma technology?

A. Antigen-specific T cells

B. Antigen-specific B cells

C. Myeloma cells

D. Culturing in HAT medium

Q2: By using an ELISA kit for the detection of IFN-gamma among different treatments of T cells in one experiment, we will **NOT** be able to detect:...

A. The presence of IFN-y in different treatments

B. The purity of IFN-y among other cytokines in different treatments

C. The quantity of IFN-y in different treatments

D. We can detect all above-mentioned options

Q3: To perform an ELISA, which options shows the correct sequence to add reagents to the immune-plate?

A. HRP-Streptavadin → Biotin-labelled detection Ab → Sample → Capture Ab → TMB substrate

B. Capture Ab → Sample → Biotin-labelled detection Ab → HRP-Streptavadin → TMB substrate

C. Sample → Capture Ab → Biotin-labelled detection Ab-> HRP-Streptavadin → TMB substrate

D. Capture Ab → Sample → HRP-Streptavadin → Biotin-labelled detection Ab → TMB substrate

Q4: Clonal expansion of OVA-specific B cells can be done by:

A. Soluble ovalbumin

B. MHC I-bound ovalbumin peptides

C. MHC II-bound ovalbumin peptides

D. OVA-reactive T cells

Q5: The transcript profile of T cells can be identified by:

A. RT-qPCR

B. ELISPOT

C. Flow cytometry

D. Mass spectrometry

Q6: In a mixture of CD4+ T cells, CD8+ T cells and B cells, we can identify all T cells by the expression of:

A. CD3

B. CD4

C. CD8

D. Tetramer