

Directed Reading

Section: Immune Response

In the space provided, write the letter of the description that best matches the term or phrase.

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|----------|----------------------|--|
| <u>B</u> | 1. macrophages | a. activate both cytotoxic T cells and B cells |
| <u>C</u> | 2. cytotoxic T cells | b. consume pathogens and infected cells |
| <u>D</u> | 3. B cells | c. attack and kill infected cells |
| <u>A</u> | 4. helper T cells | d. label invaders for later destruction by macrophages |

Read each question, and write your answer in the space provided.

5. What are antigens?

A substance that triggers an immune response.

6. What is the relationship between antigens and white blood cells?

WBC's are covered with receptor proteins which recognize & bind to specific antigens that match the receptors particular shape.

7. What are the two main parts of an immune response?

The B cell response is a defense that aids the removal of pathogens from the body. The T-cell response is a defense that involves the destruction of pathogens by cytotoxic T-cells.

8. How do helper T cells first become part of the immune response to invasion by a virus?

Receptor proteins on helper T cells bind to the viral antigen displayed by the macrophages that engulfed the virus.

9. How does interleukin-1 amplify the body's response to an invasion?

Interleukin-1 stimulates helper T-cells, which then activates B-cells & cytotoxic T-cells.

10. What is the role of B cells in the immune response?

B cells divide & develop into plasma cells, which release antibodies.

11. How do antibodies help fight viral infections?

Antibodies bind to antigens, marking pathogens for destruction by macrophages.