

The immune response flashcards · Edexcel International A Level Biology · 18 cards. Print double-sided (flip on long edge), then cut along the lines.

The immune response Describe the steps of inflammation.	The immune response What does lysozyme do?
The immune response What does interferon do?	The immune response Steps of phagocytosis in order.
The immune response Define antigen.	The immune response Describe the structure of an antibody.
The immune response What is an antigen-presenting cell?	The immune response How do antibodies help destroy pathogens?

Hydrolyses peptidoglycan in bacterial cell walls, causing lysis by osmosis.

Histamine released, vasodilation and more permeable capillaries, tissue fluid causes swelling, phagocytes attracted to the site.

Binds, engulfed into a phagosome, lysosome fuses, enzymes digest, antigens presented.

Released by virus-infected cells; stops viral protein synthesis and mRNA in neighbouring cells.

Y-shaped; two heavy and two light chains; disulfide bridges; variable regions form two antigen-binding sites; constant region and hinge.

A molecule, usually protein or glycoprotein, recognised as foreign that stimulates an immune response.

Agglutination, opsonisation for phagocytosis, neutralising toxins and blocking attachment.

A cell that displays foreign antigen on its surface to T cells, for example a macrophage.

The immune response

What does a T helper cell do?

The immune response

What does a T killer cell do?

The immune response

What is the difference between a plasma cell and a B memory cell?

The immune response

Why is the secondary immune response faster?

The immune response

Define artificial active immunity.

The immune response

Give examples of natural passive immunity.

The immune response

Why is passive immunity short-lived?

The immune response

What is the evolutionary race between pathogens and hosts?

Kills infected body cells by releasing perforin and enzymes.

Is activated by an antigen-presenting cell and releases cytokines that activate B cells and T killer cells.

Memory cells are already present and divide quickly into plasma cells.

Plasma cell (B effector) secretes antibodies. B memory cell is long-lived and gives a fast response to the same antigen.

IgG across the placenta and IgA in colostrum and breast milk.

Immunity from vaccination: the body makes its own antibodies and memory cells.

Continued selection of pathogen mutations that evade immunity and host variations that resist, each driving change in the other.

No memory cells are formed and the antibodies are gradually broken down.

The immune response

Give three ways pathogens evade the immune system.

The immune response

Why is influenza vaccine updated regularly?

Surface antigens change by mutation, so memory cells for the old strains do not recognise new strains.

Antigenic variation, hiding inside host cells, and destroying or disabling immune cells.