

Immunology MCQ exam, True answer in Red

1. All of the following are true with respect to IgM antibodies EXCEPT which one

- A. they fix complement
- B. they occur on the surface of lymphocytes
- C. they predominate in the primary response to antigen
- D. they are glycoproteins

E. they mediate allergic reaction

2. One principal function of complement is to

- A. inactivate perforins
- B. mediate the release of histamine

C. Bind antibodies attached to cell surfaces and to lyse these cells

D. phagocytize antigens

E. cross link allergens

3. One principal function of the Class I and Class II major histocompatibility complex S proteins is to

- A. transduce the signal to the T-cell interior following antigen binding
- B. mediate immunoglobulin class switching

C. present antigen for recognition by the T-cell antigen receptor

D. stimulate production of interleukins

E. bind complement

4. The major role of the complement system is to work in conjunction with

A. antibodies to lyse cells via the C8 and C9 components

B. the major histocompatibility complex for cell recognition

C. antibodies to opsonize cells

D. the T-cell receptor for production of lymphokines

E. antibodies to lyse cells via the perforin molecules

5. T-cell antigen receptors are distinguished from antibodies by which of the following

A. T-Cell receptors are glycosylated

B. T-cell receptors must interact with antigen uniquely presented by other cells but not with free antigen

C. T-Cell receptors bind various cytokines

D. T-Cell receptors bind complement to lyse cells

E. T-cell receptors are mediators of allergic reactions

6. T-cell receptors or antibodies react with antigens

A. because both are made by lymphocytes

B. because of complementary of molecular fit of both with antigen

C. because both 'have light chain and heavy chain polypeptides

D. cause histamine release

E. facilitate perforin release

7. All of the following are true of antigen EXCEPT which one of the following?

A. They contain epitopes.

B. They will react with antibodies.

C. They contain antigenic determinants.

D. They can elicit an immune response.

E. They contain paratopes.

8. All of the following are true with respect to IgE molecules, EXCEPT which one?

A. They are the principal immunoglobulin class involved in allergic reactions.

B. They are involved in mediating anti-parasitic immune responses.

C. They will cross the placenta and fix complement.

D. They can effect the release of histamine and other chemical mediators.

E. They are the least abundant immunoglobulin in the serum.

9. Which of the following immunoglobulins is present normally in plasma at the highest concentration?

A. IgG

B. IgM

C. IgA

D. IgD

E. IgE

10. All of the following are true about antibodies, EXCEPT which one?

A. They fix complement.

B. They occur on the surface of B-lymphocyte

C. They predominate the primary immune response to antigen.

D. They are glycoproteins.

E. They are molecule with a single, defined amino acid sequence.

11. The major immunoglobulin family to which a particular immunoglobulin belongs can be determined by sequential analysis of the 110 amino acids beginning from the

A. Amino terminus of the light chain.

B. Carboxy terminus of the light chain.

C. Amino terminus of the heavy chain.

D. Carboxy terminus of the heavy chain.

E. None of the above

12. The immunoglobulin Joining chain (J-chain) is

A. only produced by T-Cells

B. only produced by neutrophils

C. associated with only multimeric forms of IgM and IgA

D. associated with IgE for histamine release

E. only produced by mast cells

13. All of the following are true EXCEPT

A. An epitope is a small portion of a macromolecule

B. the variable region domains contain the antigen recognition site

C. an antigenic determinant is a paratope

D. The class of an immunoglobulin is determined by its heavy chain

E. An IgG antibody is bivalent

14. Which immunoglobulin is the principal one found in secretions such as milk?

A. IgG

B. IgM

C. IgA

D. IgD

E. IgE

15. Individuals unable to make the J protein found in certain immunoglobulins would be expected to have frequent infections of the

A. brain.

B. blood.

C. liver.

D. pancreas.

E. intestinal tract.

16. Which of the following statements best characterizes an antibody?

A. An antibody contains high molecular weight RNA as its basic structure.

B. An antibody is composed of protein and cannot be distinguished from the albumin fraction of the serum proteins.

C. An antibody is composed of four identical protein subunits which may be caused to dissociate by treatment with urea.

D. An antibody contains protein as its major chemical component and its synthesis may be elicited by the administration of a foreign protein or polysaccharide.

E. An antibody contains mucopolysaccharides as its major chemical component and the synthesis of these may be elicited by the administration of a foreign protein or polysaccharide.

17. The immunoglobulin class which is the least abundant in the normal adult is

A. IgG

B. IgA

C. IgM

D. IgD

E. IgE.

18. Class switching of immunoglobulins occurs

A. Usually with booster immunizations, going from IgM to IgG

B. binds complement

C. causes the histamine release

D. mediates immunoglobulin class switching

E. results in the glycosylation of immunoglobulins

19. When a B-cell undergoes immunoglobulin class switching

A. the variable region of the light chain changes, but its constant region remains the same

B. the variable region of the light chain remains the same, but its constant region changes

C. the variable region of the heavy chain remains the same but its constant region changes

D. the variable region of the heavy chain changes but its constant region remains the same

E. both the variable and constant regions change

20. The class of an immunoglobulin

A. is determined by Class I and Class II major histocompatibility complex proteins

B. is determined by the carbohydrate attached to the light chain

C. determined by the antigen

D. is determined by the heavy chain type

E. Is determined by the J-chain