

# Immunology

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Archive

Lecture 3

Medical card .

Name \_\_\_\_\_

Date of b

Gender \_\_\_\_\_

Address \_\_\_\_\_

Date of call \_\_\_\_\_

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48) Negative feedback of B cell activation:

- A. CD5
- B. CD11
- C. CD20
- D. CD22
- E. CD86

Answer:D

20) All the following in the b cells except ?

- A. CD2
- B. CD22
- C. CD40
- d.CD40LN

Answer:D

1. Which of the following accurately describes a difference between B cells and plasma cells?

- A) Plasma cells express CD20, while B cells do not.
- B) Plasma cells are the primary cells responsible for antibody production, while B cells do not produce antibodies.
- C) B cells have a high level of immunoglobulin production, whereas plasma cells do not.
- D) B cells are short-lived and primarily function in antibody production, while plasma cells are long-lived and produce antibodies.

Answer:b

20. All of the following are expressed on B cells except:

- A) CD19
- B) CD20
- C) CD21
- D)CD40LN

answer: D

133)Predominant immunoglobulin in external secretions such tears, mucous is

Select one

- a) igE
- b) IgM
- c)IgA
- d) ig G
- e)ig D

answer: C

134) The germinal center is an important site of Select one:

- a) Hematopoiesis
- b) B-cell maturation
- c) B-cell receptor editing
- d) Myeloid cell differentiation.
- e) antibody V gene rearrangement

Answer: b

145) The class of an immunoglobulin Select one:

- a) is determined by Class I and Class II major histocompatibility complex proteins
- b) is determined by the carbohydrate attached to the light chain is
- c) determined by the variable part
- d) is determined by the heavy chain type
- e) Is determined by the J-chain

Answer: D

147) Which of the following is the first step in the specific immune response to antigen? Select one

- a) Memory cell formation
- b) Secretion of antibody molecules
- c) Antigen presentation to T helper cell
- d) Secretion of cytokines by T helper cell
- e) plasma cell formation

Answer: C

148) This immune cell is able to respond quickly after any second encounter with the same antigen Select one

- a) basophil
- b) helper T cell
- c) memory cell
- d)antigen - presenting cells
- e) plasma cell

Answer: C

103) Somatic hypermutation is Select one:

- a) Commonly found in both ig and T-cell receptor genes
- b) Restricted to the constant region.
- c) Restricted to the beta chain
- d) Found only in Ig heavy chains
- e) Found only in Ig variable regions

Answer: E



120) Which of the following is the ligand for the B cell coreceptor Select one

- a) c3
- b) C3b
- c) IL-2
- d) C3d
- e) CR2

Answer: D

61) The effect of AB is determined by?

- A) constant region of Heavy chain
- b) variable region of light chain
- c) constant region of light chain
- d) variable region of heavy chain

Answer: A

62) Somatic hyper mutation is due to:

- a) Change in the variable region of heavy chain, constant unchanged
- b) Constant region of heavy chain changed, variable region is unchanged
- c) Variable region of light chain is changed, constant is unchanged
- d) Constant of light chain is changed, variable is unchanged
- e) Both variable and constant regions are changed

Answer: A

67): The disease that result from mutation in CD40L gene is

- a) Acquired immune deficiency syndrome
- b) X-related Hyper-IgM syndrome
- c) Hyper-IgM syndrome
- d) paroxysmal nocturnal haemoglobinuria
- e) hereditary angioedema

Answer: B

68): B cells in the periphery that haven't exposed to antigens before called:

- a) pre-B cells
- b) mature
- c) immature
- d) naïve
- e) pro-B cells

Answer: D



50) Deletions in the T-cell CD154 (CD40L) gene produce:

Select one:

- a) Congenital X-linked agammaglobulinemia
- b) IgA deficiency.
- c) Deficiency in cytotoxic T-cell activity
- d) The hyper—IgM syndrome.
- e) Wiskott-Aldrich Syndrome.

Answer: D

53) Somatic hyper mutation. Select one:

- a) Occurs in the Bone Marrow.
- b) Involves immunoglobulin V genes
- c) Do not need T cell help.
- d) Can decrease the affinity of an antibody.
- e) Is Changing the variable part on light chain.

Answer: B

44) All are T-independent B cells except

Select one:

- a) Marginal zone B cells
- b) B1 cells
- c) CD5 B cells
- d) Follicular B cells
- e) Natural antibody-producing cells

Answer: D

46) Germinal center is incubated with

Select one:

- a) Activated T cells
- b) Activated B cells
- c) Antibodies
- d) Naïve B cells
- e) Naive T cells

Answer: B

49) The molecules mediating signal transduction following antigen binding to cell surface immunoglobulin on a B-cell are called:

Select one:

- a) Ig Fc
- b) Ig-alpha and Ig-beta
- c) MHC
- d) Ig-delta
- e) CD8

Answer: B

27)an example of a molecule present in memory cells is:

select one:

- a) Bcl-2
- b) TRAIL
- c) Bax
- d) FADD
- e) Caspase 8

Answer: A

36)Isotype switch occur in

Select one:

- a) Paracortical area of lymph node
- b) Cortex of lymph node
- c) Bone marrow
- d) Medulla
- e) Circulation

Answer: B

39)Which of the following characteristics is common to both T cell receptors and immunoglobulins

- a) The antigen receptors composed of two identical heavy chains and two identical light chains
- b) Receptor editing for both occurs in bone marrow
- c) Their production occurs in bone marrow
- d) Somatic recombination V, D and J segments is responsible for the diversity of antigen binding site
- e) Somatic hypermutation changes the affinity of antigen-binding sites in both and contributes to further diversification

Answer: D

12)Which of the following proteins does NOT make up the B cell co-receptor?

Select one :

- a) CD19
- b) CD21
- c) CD20
- d) CD81
- e) CD2

Answer: C

17) The enzyme responsible for isotype switch is

Select one:

- a) Activation-induced cytidine deaminase (AID)
- b) Synapse
- c) RAG-1 and 2 recombinase
- d) Artemis endonuclease
- e) Ligase

Answer: A

11) After B cells activation in the peripheral lymph nodes All are true except

Select one:

- a) B cell converted to CD20+ plasma cells
- b) Memory B cell enter circulation
- c) Plasma cells reside in the medulla
- d) Antibodies enter the circulation
- e) B cells from germinal center

Answer: A

