

The People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
University Center of Mila
Faculty of Natural and Life Sciences
Department of Biological and Agronomic Sciences

TD 00 – Molecular & Cellular Immunology

Exercise 1: Definitions

1. Innate immunity 2. Adaptive immunity 3. Antigen 4. Humoral response 5. Cellular immunity response

Exercise 2: Barriers to innate immunity

Match each item to its innate immunity barrier type:

1. Tears 2. Gastric acidity 3. Skin 4. Macrophages 5. Neutrophils

Exercise 3: Antibodies and Functions

Complete the following sentences:

1. Antibodies are produced by _____.
2. They specifically recognize and bind to _____.
3. The primary antibody involved in the primary immune response is _____.
4. The antibodies participate in the elimination of pathogens by _____, _____, and _____.

Exercise 4: Complete the following text

Immature T-lymphocytes (pre-T-lymphocytes), generated inIn the cortex of the latter, the pre-LTs acquire, as well as two others receptors. Then they come into contact with cortical epithelial cells that present them with class I and class II molecules. LTs that neither recognize either of the two MHC molecules die by..... A large proportion of LTs die as a result (positive selection).

The surviving LTs head into the medulla, where cells present them with SOI Ag. LTs that recognize these Ag with too much affinity are..... (Negative selection).

Surviving LTs (less than 1%!) lose their receptor or: cells that react with it.....keep the CD8 molecule and lose CD4. Conversely, cells that bind with the..... lose their.....

Mature LTs pass into the bloodstream and move to the..... in which they will be able to meet potential Ag.