

Unit 3 C21 Worksheet 9
Clonal Selection

1. What may B cells synthesize and embed in their plasma membranes? Are these structures “unique”?
2. What occurs if an foreign antigen meets up with a B-cell with surface antibody matching the foreign antigen? (Called?)
3. After B-cell activation, what two type of cells will the B-cell morph into? Function of each cell type?
4. Do memory-H-B-cells produce antibodies at this time? When may they produce antibodies?
5. What is the role of H-T-cells in the activation of B-cells?

Note: B cell activation may use two pathways: H-T-cell dependent activation or H-T-cell independent activation. If a B cell is activated without H-T-cells then the response is weaker so fewer plasma cells and fewer antibodies are formed but no memory-B-cells are formed. If a B cell is activated with H-T-cells then the response is much greater with many more plasma cells and antibodies formed. Furthermore, memory-B-cells are formed so the person will be protected from future infections from the same pathogen.