

Structure & Function of Antibody

Antibody^(Ab) or Immunoglobulin (Ig) are glycoprotein formed in response to an antigen and react specifically with that antigen.

Rodney Porter (1962) proposed the basic structure of immunoglobulin.

STRUCTURE: Immunoglobulin are Y-shaped. It has a stalk and two limbs. The tip of the limbs is called the antigen binding site or paratope.

The tip of stalk is called FC (Fragment, crystallizable)

In Immunoglobulins FC binds to the phagocytes or complements.

Immunoglobulin exist in two forms

1) Soluble immunoglobins \rightarrow These are found in dissolved condition in the blood serum and body fluid.

2) Membrane bound Immunoglobulin:

These immunoglobulin are found on the surface of B cells. So they are called surface immunoglobulin (SIg) or membrane immunoglobulin (MIg).

Immunoglobulin are made up of two pairs of polypeptide chains.

Each polypeptide chain is made up of linear sequence of amino acids. Some amino acids are attached to sugar chain, so they are glycoprotein in nature.

IMMUNOGLOBULIN (Ig) [ANTIBODY] 1

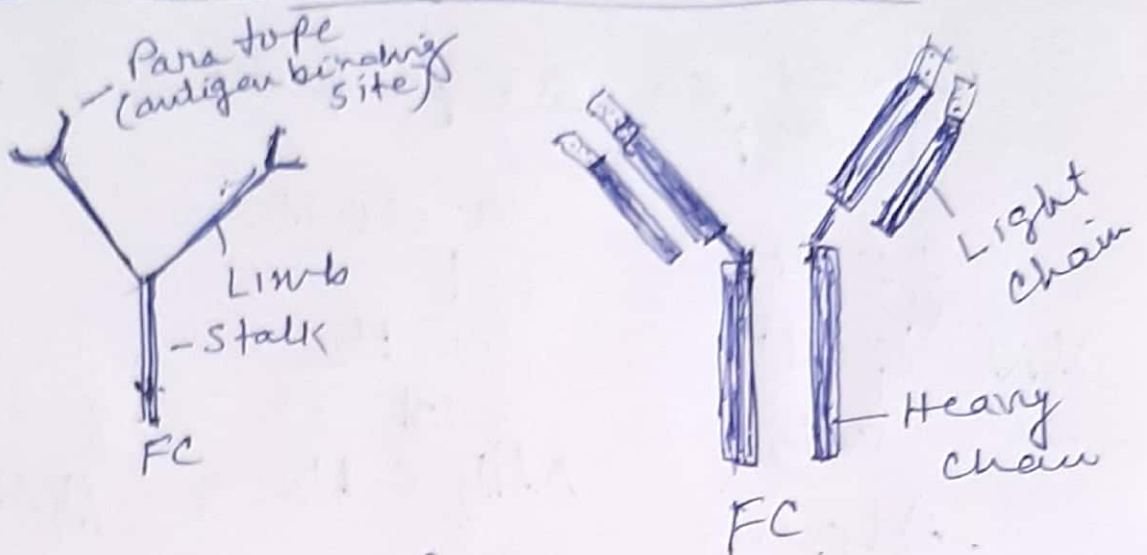


Fig - Immunoglobulin

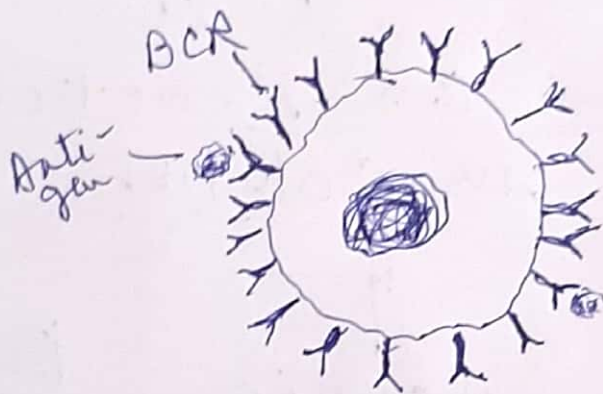
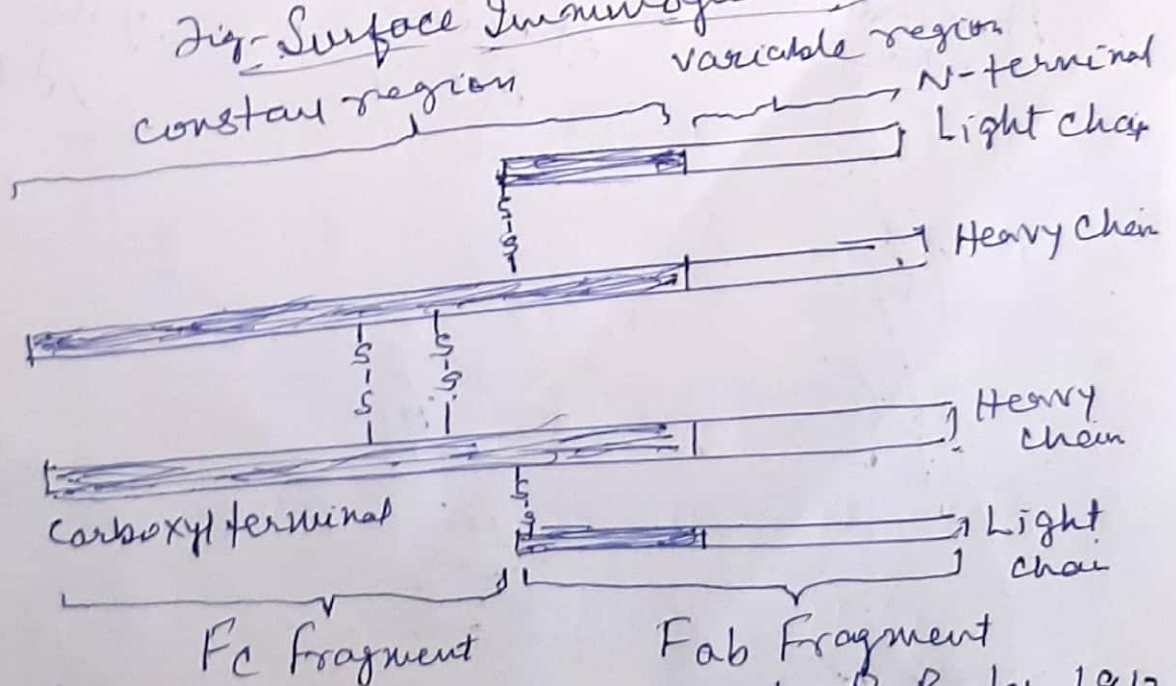


Fig - Surface Immunoglobulin (sIg) of B cell.



(Fig. Immunoglobulin Model Proposed by R. Porter 1952)