

Keywords and Phrases for Antigens

A substance that reacts with antibody molecules and antigen receptors on lymphocytes

Allergens

An antigen that is recognized by the body as non-self and stimulates an adaptive immune response

Can bind directly to epitopes on peptide, protein, polysaccharide, nucleic acid, and lipid antigens

Can only recognize peptide epitopes from protein antigens presented by the body's own cells by way of special molecules called MHC molecules

Cancer cells, infected cells, cells involved in autoimmune diseases

Composed of 4 glycoprotein chains; the actually antibody molecules made by that cell and anchored to the outer surface of its cytoplasmic membrane

Foreign tissues and cells from transplants and transfusions

Have many epitopes, but all of the same specificity

Have many epitopes of different specificities

Microbial structures

Microbial toxins

Polysaccharides (including lipopolysaccharides)

Proteins (including conjugated proteins such as glycoproteins, lipoproteins, and nucleoproteins)

The actual portions of an antigen that react with receptors on B-lymphocytes and T-lymphocytes, as well as with free antibody molecules

The body produces 10,000,000 or more distinct clones of both B-lymphocytes and T-lymphocytes, each with a unique B-cell receptor or T-cell receptor.

The body recognizes an antigen as foreign when epitopes of that antigen bind to B-lymphocytes and T-lymphocytes by means of epitope-specific receptor molecules having a shape complementary to that of the epitope.