

Antibody and the antibody-like T-cell receptor (TCR) molecules recognize antigens and act as receptors to activate the growth and functions of those cells that can elicit the antigen-specific response. The soluble forms of antibody in the blood, body fluids, or secreted across membranes protect the body by inactivating and promoting the elimination of toxins and microbes, especially when they are in the blood (bacteremia, viremia). Although some molecules elicit only a limited antibody response (carbohydrates and lipids), proteins and protein-conjugated molecules (including carbohydrates) elicit a more complete immune response that includes T cells. T cells continuously regulate the entire system, maintaining a balance that normally minimizes inflammation but still allows protection from normal and pathogenic microbes.