Mucosal Immunology: Attack of Antigens

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Description

Antigens are transported through many ways such as Air, water, food. So our body defense mechanism helps in throwing them out of the body in the form of saliva, expiration, cough, nasal droplets, sweat, urine and feces.

Absorption of Antigens

Antigens are transported through mucosal barriers in 2 components Extrinsic mechanism will limit the amount of antigen reaching the surface, intrinsic barrier consists of the structural and functional properties. Production of immunoglobulin directed towards luminal antigen depends on immunologically intact antigen interacting with membrane bound immunoglobulins on the surface of B cells that are located beyond the epithelium. Mechanisms that allow passage of antigen through the intestinal epithelium in controlled amounts are therefore an essential prelude to B cell activation.

Tcell responses on the other hand are initiated by presentation of short peptides bound to major histocompatibility complexes. As luminal antigen can activate mucosal T cells, the luminal antigens are produced by internal organs to reduce them to peptide so that they can bind to major histocompatibility complex molecules and in turn interact with T cell receptors. Antigens can be processed in three ways first one is the peptide fragments generation during transit in lumen with proteins acted on luminal proteases second one is antigen can be