

Idiotypes and anti-idiotypic antibodies: A review

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Idiotypes and anti-idiotypic antibodies: A review

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Abstract

An idiotype (Id), defined as an epitope within the variable region of immunoglobulin, is used as a structural and functional marker of the region. Anti-idiotypic antibodies (anti-Ids or Ab2s) can be generated upon immunization with an antibody (Ab1) which contains a variety of Ids. One set of anti-Ids, referred to as internal-image Ab2s, recognizes an Id which is shared by antibodies with the same or similar specificities. This Id is designated a common Id. Anti-Ids that recognize a common Id and represent an internal image of the antigen have been generated in many systems. Many experimental studies have shown the potentials of anti-Ids as immune regulators to various pathogens. The antigenic mimicry of internal-image Ab2 β makes them valuable not only as immunogens for eliciting specific immune response to infectious pathogens but also as probes for studying cell receptors, as well as for immune therapy for tumors.

Reference

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