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## Der p 5 allergen from house dust mite: The first epitope mapping of rabbit-IgG blocking antibodies

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Der p 5 is one of the most commonly recognized house dust mite (HDM) allergen in patients suffering from allergic asthma; however, there is no information on its IgG-binding epitopes. In the present study, rabbits were immunized with recombinant Der p 5 allergen and serum samples were obtained. Recognition of linear IgG-epitopes of Der p 5 was determined using synthesized peptides derived from the allergen sequence. The results showed that serum from immunized rabbits recognized three linear epitopes from Der p 5 viz. (<sup>28</sup>EDKKHDYQNEFDLLMERIHEQIK<sup>43</sup>), (<sup>37</sup>IHEQIKKGELALFYLQEQ<sup>55</sup>) and (<sup>92</sup>LMQRKDLDFEQYNLEMAKKS<sup>112</sup>). More interesting, we observed that the <sup>92</sup>L-S<sup>112</sup> amino acid sequence is well recognized by both IgE and IgG antibodies. Der p 5 stimulates the synthesis of specific IgG-antibodies which recognizes common but also novel epitopes compared with IgE-antibodies binding. Indeed, the potential to induce IgG-antibodies can be used to inhibit human-IgE binding to allergens which may be part of the mechanism of action of specific immunotherapy (SIT).

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