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Author	Björn Svensson	
Title (English)	Explorative prototype of multiplex ImmunoCAP	
Title (Swedish)		
Abstract	<p>Allergy is a phenomenon that can cause severe problems and decrease the quality of life for many people worldwide. The ability to detect immunoglobulin E (IgE), which plays an important role in allergic reactions, was established in the late 1960's and has enabled the present <i>in vitro</i> diagnostic tool called the ImmunoCAP technology. The aim of this project is to develop a multiplex version of the ImmunoCAP assay. By multiplexing, the assay can be improved both concerning shortened assay time and a reduction of the amount of sample needed.</p> <p>In the project the multiplex method was first developed in an ELISA format. Fluorophores were used as reporter system, and the fluorescence was detected using Typhoon 9400. Later, attempts were made to transfer the multiplex assay to the ImmunoCAP platform.</p> <p>Results from the project shows that when multiplexing there are differences in measured IgE-levels between an existing singleplex method and the multiplex prototype. The project also revealed some difficulties which arose during multiplexing, for example overlap of fluorescence spectra and auto-fluorescence in the ImmunoCAP system.</p>	
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