



UPPSALA
UNIVERSITET

Degree Project in Molecular Biotechnology

Masters Programme in Molecular Biotechnology Engineering,
Uppsala University School of Engineering

UPTEC X 14 044	Date of issue 2015-01	
Author	Sebastiaan Mul	
Title (English)	An experimental Point of Care assay to support allergy related asthma diagnosis	
Title (Swedish)		
Abstract	Asthma is a growing health and economical issue affecting patients worldwide. Exposure to allergens can lead to the development of allergic diseases responsible for symptoms in asthmatic patients. Eosinophils play a critical role in the late inflammatory response by secreting inflammatory substances and proteins. Eosinophil Protein X (EPX), a protein secreted by eosinophils, has been proposed as a biomarker to monitor eosinophil activity in asthmatic patients. An experimental Point of Care (POC) assay capable of determining EPX concentrations in a patient blood sample and testing if the patient is sensitized to common asthma inducing allergens was developed and is presented in this report.	
Keywords	Asthma, Allergy, Immunoglobulin E, Eosinophil Protein X, Point of Care Assay	
Supervisor	Niclas Rydell Thermo Fisher Scientific, Uppsala	
Scientific reviewer	Hillevi Englund Thermo Fisher Scientific, Uppsala	
Project name	Sponsors	
Language	Security	
English	Secret until 2025-01	
	Classification	
Supplementary bibliographical information	Pages	
	94	
Biology Education Centre Box 592, S-751 24 Uppsala	Biomedical Center Tel +46 (0)18 4710000	Husargatan 3, Uppsala Fax +46 (0)18 471 4687