UPPSALA UNIVERSITET

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 10 010	**Date of issue 2010-06**

Author

John Juter

Title (English)

Purification and characterization of IgY antibodies from chicken egg yolk against the changing influenza A-virus

Title (Swedish)

Abstract

Pandemic influenza is a constant threat to the public health and economy. The pandemic H1N1 outbreak of 2009 highlights the need for new forms of immunotherapy. Avian antibodies (IgY) represent a cheap and effective form of passive immunotherapy. In this study we have developed a cheap and high-yield purification protocol that could be applied to a large scale production of IgY. We also showed that the extracted IgY has a good ability to neutralize virus *in vitro.* An automated fluorochrome based immune assay has also been developed on a Gyrolab instrument for quantification of IgY.

Keywords

IgY, Influenza, H5N1, Gyrolab, Immunoassay, Precipitation

Supervisors

Kjell-Olov Grönvik
Statens veterinärmedicinska anstalt

Scientific reviewer

Birgitta Heyman
Uppsala universitet, Institutionen för medicinsk biokemi och mikrobiologi

Project name	Sponsors
Language **English**	Security
ISSN 1401-2138	Classification
	Pages **24**

Biology Education Centre Biomedical Center Husargatan 3 Uppsala
Box 592 S-75124 Uppsala Tel +46 (0)18 4710000 Fax +46 (0)18 471 4687