



UPPSALA  
UNIVERSITET

## Molecular Biotechnology Programme

Uppsala University School of Engineering

<b>UPTEC X 07 040</b>		<b>Date of issue 2007-08</b>
Author <b>J. Peter Johansson</b>		
Title (English) <b>Characterization of possible oncofetal antigens in lung cancer applying antibody library</b>		
Abstract <p>Emryogenesis, the development of an embryo, and oncogenesis, the formation of a tumor, are both driven by unique self-renewing stem cells. Tumor markers present during these two processes are called oncofetal antigens. In this work a library of antibodies, raised mainly against human embryonic stem cells, has been screened for oncofetal antigens displayed by lung cancer cells. Characterization was performed employing CELISA, western blotting, immunocytochemistry, periodate sensitivity measurements and phage display. A number of antigens, possibly of oncofetal nature, have been described. Multiple antigens were proven to be secreted and therefore applicable as tumor markers. Also, an antigen maybe exclusively present in adenocarcinomas was found.</p>		
Keywords <p>Oncofetal antigen, antibody library, human embryonal stem cell, tumor marker, CELISA, western blotting, immunocytochemistry, phage display</p>		
Supervisors <b>Christian Fermér</b> <b>Fujirebio Diagnostics AB, Gothenburg</b>		
Scientific reviewer <b>Ingela Turesson</b> <b>Department of Oncology, Rudbeck Laboratory, Uppsala</b>		
Project name	Sponsors	
Language <b>English</b>	Security	
<b>ISSN 1401-2138</b>	Classification	
Supplementary bibliographical information	Pages <b>49</b>	
<b>Biology Education Centre</b> Box 592 S-75124 Uppsala	<b>Biomedical Center</b> Tel +46 (0)18 4710000	<b>Husargatan 3 Uppsala</b> Fax +46 (0)18 555217

