



UPPSALA
UNIVERSITET

Molecular Biotechnology Programme

Uppsala University School of Engineering

UPTEC X 06 014	Date of issue 2006-04	
Author Johan Viklund		
Title (English) ORFans within the alphaproteobacteria and their frequency in one environmental sample		
Abstract <p>Microbial genomes contain a large proportion of ORFan genes. Our understanding of the mechanism that generate these and how common they are in nature is lacking. The aim of this project has been to identify these genes within the α-proteobacteria and to develop a method for studying their presence in nature. As a part of this project a database was built that contains all sequenced α-proteobacterial genomes. 25 different α-proteobacterial species were analyzed. 10000 genes uniquely present in the α-proteobacteria were identified, most were ORFans i.e. present in only a single species. Approximately half of these gave weak signals in BLAST searches against a small soil environmental dataset of 5,000 sequences, of which only 30 were mutually best hits.</p>		
Keywords		
Supervisors Siv Andersson Department of evolution, genomics and systematics, Uppsala University		
Scientific reviewer David Ardell The Linnaeus Centre for Bioinformatics, Uppsala university		
Project name	Sponsors	
Language English	Security	
ISSN 1401-2138	Classification	
Supplementary bibliographical information	Pages 16	
Biology Education Centre Box 592 S-75124 Uppsala	Biomedical Center Tel +46 (0)18 4710000	Husargatan 3 Uppsala Fax +46 (0)18 555217