



Medical Genetics Laboratory of Dr. Zeinali



Study the polymorphism of *Icr1* gene in *Leishmania* *infantum*

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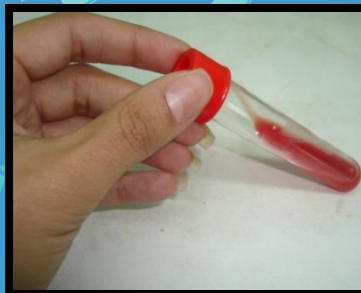
Introduction

- *Leishmania infantum* is the causative agent of Mediterranean visceral leishmaniasis. There is no efficient preventive strategy for the disease and its therapy is difficult with its side effects.
- Hence, search for a vaccine for this disease is important. *Lcr1* is an immunogenic gene discovered in *Leishmania infantum chagasi*. that causes **immunologic response** in human, so its molecular identification will be very important.
- The Aim of this study is to survey the polymorphism of *Lcr1* gene by molecular methods in **MCAN/IR/2010/Meshkinshahr** strain.



Material & Method

- *Culture Leishmania infantum* (strain MCAN/IR/2010/Meshkinshahr) cultured in NNN media.
- Parasite pellets (100 million/pellet) were prepared
- genomic DNA was extracted.
- Parasite species was verified as *Leishmania infantum* by sequencing of ITS1 gene.
- *Lcr1* gene was amplified by *lcr1* specific primers.
- Analysis of PCR product and running Blast search
- correct sequence was determined





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Result & Discussion

- Our results show that *lcr1* gene is completely conserved in MCAN/IR/2010/Meshkinshahr strain.
- Conservation of this immunogenic gene (*lcr1*) adds to its value as an immunogenic molecule against Mediterranean visceral leishmaniasis.
- So the importance of this identical immunologic molecule is very high.

NCBI Resources How To My NCBI

Nucleotide Search

Limits Advanced

Display Settings: GenBank Send:

Leishmania infantum isolate MCAN/IR/2010/Meshkinshahr calpain-like cysteine peptidase gene, partial cds Change region shown

GenBank: JQ768374.1 Customize view

[FASTA](#) [Graphics](#)

LOCUS	JQ768374	785 bp	DNA	linear	INV 27-MAY-2012
DEFINITION	Leishmania infantum isolate MCAN/IR/2010/Meshkinshahr calpain-like cysteine peptidase gene, partial cds.				
ACCESSION	JQ768374				
VERSION	JQ768374.1	GI:388254524			
KEYWORDS	.				
SOURCE	Leishmania infantum				

Analyze this sequence

Run BLAST

Pick Primers

Highlight Sequence Features

Find in this Sequence