Parviz Parvizi, J Clin Exp Pathol 2017, 7:1 (Suppl)
http://dx.doi.org/10.4172/2161-0681.C1.031

Evaluating and setting up a qPCR by high resolution melting method for definite discrimination of *Leishmania* species by targeting AAP 3 gene

Parviz Parvizi
Pasteur Institute of Iran, Iran

Leishmania as protozoan parasites causes major diseases of leishmaniasis in the people of tropical and subtropical regions. In different hosts including humans, clinical samples, rodents and/or other mammals as reservoir hosts and sand flies as vectors, mixed infections, co-infections and different hybrids of *Leishmania* parasite with different aneuploidy in chromosomes were observed. To differentiate common old world parasite species and discriminate co-infection with different species the genetic variation analysis and SNP prediction was identified by using high resolution melting analysis as a powerful method. For each species, one standard sample was amplified and a recognized region was cloned. Three sets of primer were designed for nuclear gene of amino acid permeases *(AAP3)* gene and EvaGreen dye mechanism was used and the different temperature of HRM species was optimized. Temperature variation in HRM separated *L. major* and *L.* tropica co-infections and their sub-strains. The specific and common primers were separate species and strains by melting temperature analysis. To compare with variety of mitochondrial and nuclear genes, *AAP3* gene is more sensitive and specific than other genes for identification of *Leishmania* parasites. The setup HRM could separate common species of *Leishmania* parasite and useful in separations intra-stains. Efficiency and regression coefficient reactions for genus and species *Leishmania* were also validated.

Biography

Parviz Parvizi has completed his PhD from the London School of Hygiene and Tropical Medicine (London University) and Natural History Museum (London) in 2004. He was a Full Professor since 2015 and has been appointed as the Head of Parasitology department and also as the Director of Parasitology, Immunology and Mycology Research Group at Pasteur Institute of Iran. He has published more than 60 papers in reputed journals.

parp@pasteur.ac.ir

Notes: