



# Rare Case Study of HLA-B\*67 Allele



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## **Introduction:**

Globally known, HLA-B\*67 is an uncommon allele defined through serological cross reactivity with the HLA B7 and HLA B16(B\*38 and B\*39) antigens, found in rare case among nations.

whereas, to some extent, it's known as a specific HLA genotype for Far-East Asian countries such as Japan, Taiwan and China and a high frequency of it has been reported in certain oriental populations. This allele is considered as a new risk factor among Japanese people leading to a disease known as TA (Takayasu's Arterities) and has also got a high rate of Chinese children involved with kind of cancer referred to as ALL. According to a study done in China, it was demonstrated that HLA-B67 is a male-specific HLA marker of susceptibility to relapsed child-hood acute lymphoblastic leukemia. The presence of this allele may suggest the susceptibility not only to TA (Takayasu's Arterities) but also to other diseases, particularly in Asia region.

## **Material Methods:**

In our study, a total number of 35,100 unrelated subjects were enrolled. Following that, we analyzed various HLA-B alleles by means of miniature reverse SSO Blot method applying MR.SPOT automated processor and SSP kits (BAG health care GmbH). This specific case also underwent SSP, but to make a double check, we gave it a test with SSO. The genomic DNA was extracted from umbilical cord blood samples using Roche and DNA samples for HLA genotypes and the frequencies of each HLA-B were analyzed.

## **Discussion:**

Since determining different alleles plays a leading role in all social, medical and transplanting issues of a population, more studies are demanded to be performed on them in Iran and due to the fact that there is no published data concerned with this issue in our country by far, we hope the findings of this study will be of great use in providing basic reference for all research laboratories.

## **Results:**

Recently, while performing allele tests on some samples, we have come across to a case of this allele of which the characteristics are as follows:

- The case parents are relatives.
- They come from Kerman Province, located in South East of Iran.
- Their descendants were originally dwelling in the same region.

According to recorded data, this is the first study reporting the frequency of HLA-B\*67 among Iranian ethnic groups and population.