LETTER TO EDITOR

LOCATION OF THE 70BP VNTR POLYMORPHIC SITE IS IN THIRD INTRON OF IL-4 GENE

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Sir/Madam

IL-4 gene polymorphism has been reported for their association with several diseases such as Graves's disease (1), subacute sclerosing panencephalitis (2), rheumatoid arthritis (3-4), end-stage renal disease (5), idiopathic thrombocytopenic purpura (6), chronic polyarthritis (7), fibromyalgia (8), malaria (9), transitional cell carcinoma of the urinary bladder (10), oral cancer (11), gastric cancer (12).

The human chromosomal DNA structure of IL-4 consists of four exons and map to 5th chromosome (13). Identification of polymorphic sites in IL-4 initiated a large number of molecular genetic studies for their association with a wide range of diseases. The first of the two polymorphic sites reported in IL-4 gene were intronic repeats, GT repeat in the intron-3 and 70bp VNTR in the intron-2 (14). In this study Mout et al 1991, used primer sequence forward 5'-TAGGCTGAAAGGGGGAAAGC-3' and reverse 5'-CTGTTACCTCAACTGCTCC-3' for amplifying 70bp VNTR in the intron-2. Later on, another two single nucleotides polymorphic sites were reported in promoter region of IL-4, C/T (*BsmFI*) transition at -590 position, C/T transition at -34 position (15). Currently, plentiful of polymorphic markers probes are available for IL-4 gene.

The 70bp repeat polymorphism was reported to have a frequent allelic form consists of three repeats along with a rare allele of double repeats has also been described. In addition, there is a third rare allele consisting of four repeats. Few of the paper have mentioned location of 70bp repeat as intron-2 (20, 21). However, most of the authors have cited the location of 70bp repeat as intron-3 (3, 4, 6, 7, 8, 9, 11, 12, 16, 17, 18, 19) with mentioning in the title of the paper (5, 10, 15) and interestingly quoting Mout et al., 1991. Upon query for

amplimers in the GDB database (GDB.org) also retrieved its citation position as IVS2. But, NCBI blast (ID BLASTN 2.2.17, Aug-26-2007) revealed that the forward primer location as 7671-7690bp of the intron-3 of IL-4 gene (Accession no M23442) as shown in figure 1. We feel that it was somehow overlooked in original scientific communication that warrants attention for rectification. For adding this modification to a highly cited polymorphic site of IL-4 gene, it's better late than never!

Figure 1: IL-4 gene structure showing few important polymorphic sites

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