Nuclear factors, hs1,2 enhancer and IgA nephropathy

To the Editor: Within the immunoglobulin H (IgH) locus, a minisatellite region of 53 bp is duplicated in one allele of the hs1,2 enhancer lying beside the α1 gene that encodes IgA1 [1]. In IgA nephropathy patients, this allele is associated with a severe evolution leading to renal failure [2, 3]. This duplication increases the transcriptional strength of the α1 hs1,2 enhancer and results in a higher rate of IgA1 production in patients, thus likely yielding heavier IgA1 kidney deposits. Using electrophoretic mobility shift assay, we have found that this minisatellite region carries potential transcription factor-binding site (Fig. 1). Despite that it exhibits putative nuclear factor-kappa B (NF-κB)-, Sp-1-, NF-1- and AP-1-like-binding sites [1], antibody supershift experiments did not show the involvement of P50, P52, P65, rel-b, c-rel, c-fos, c-jun, NF-1 and AP-1 nuclear factors (data not shown). Thus, still unknown nuclear factors bind to the minisatellite region of the hs1,2 enhancer and might boost the transcription of the α1 gene. Their further identification might be of interest to improve our knowledge in the course of evolution of IgA nephropathy toward renal failure.

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