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Complete sequence of the murine invariant chain (I_i) gene

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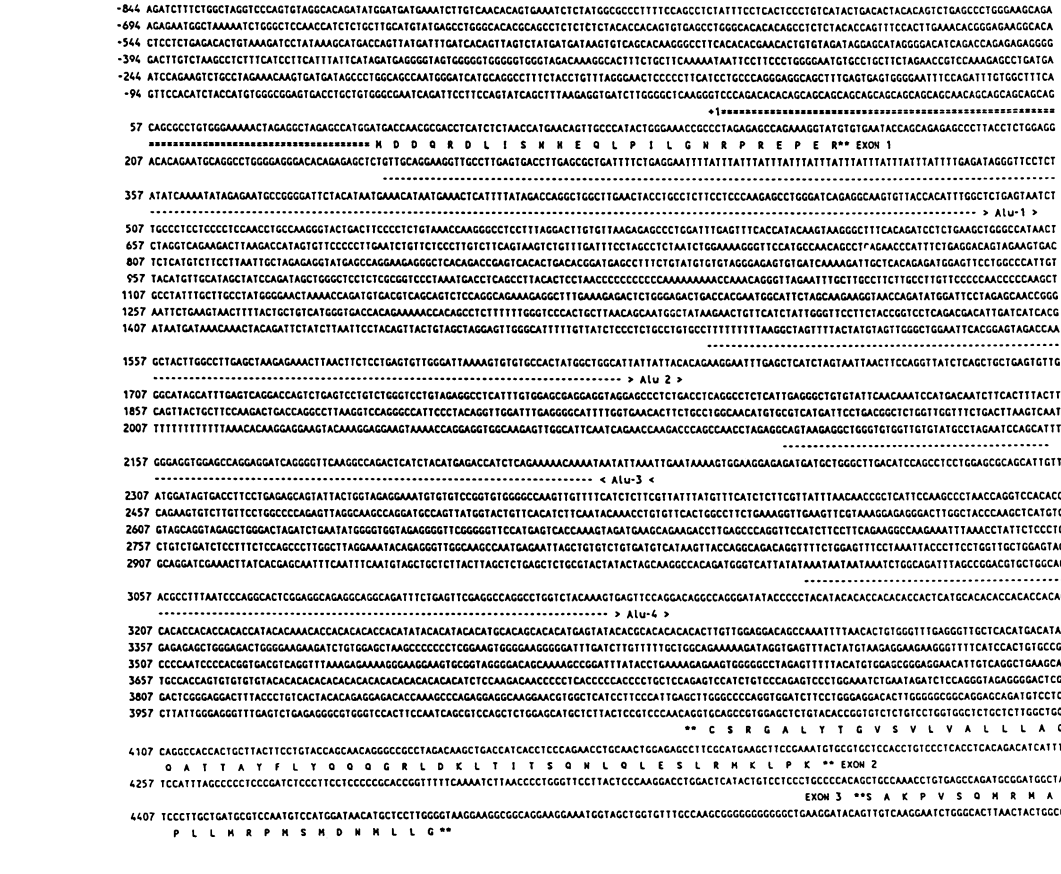
The invariant chain (Ii) is a 31 Kd glycoprotein associated intracellularly with the class II MHC (Ia) antigens(1). Starting with a cosmid clone obtained from Dr. L. Hood's laboratory at Caltech, we sequenced a 9.6 kb fragment which contains the entire murine invariant chain gene. The sequence shown here contains 9 exons including one differentially expressed called 6b(2). These exon sequences are consistant with the mouse cDNA and partial genomic sequence reported previously(2)(3). However, there are several discrepencies in exon 6b (underlined) that alter the amino acid sequence. 5 Alu-type repeats (dashed underline with arrowheads for orientation) were identified, 4 of which are contained in the first intron. The initiation site of Ii RNA transcription (+1) was determined by primer extension and S1 mapping. 5' and 3' untranslated regions are indicated (double dashed underline).



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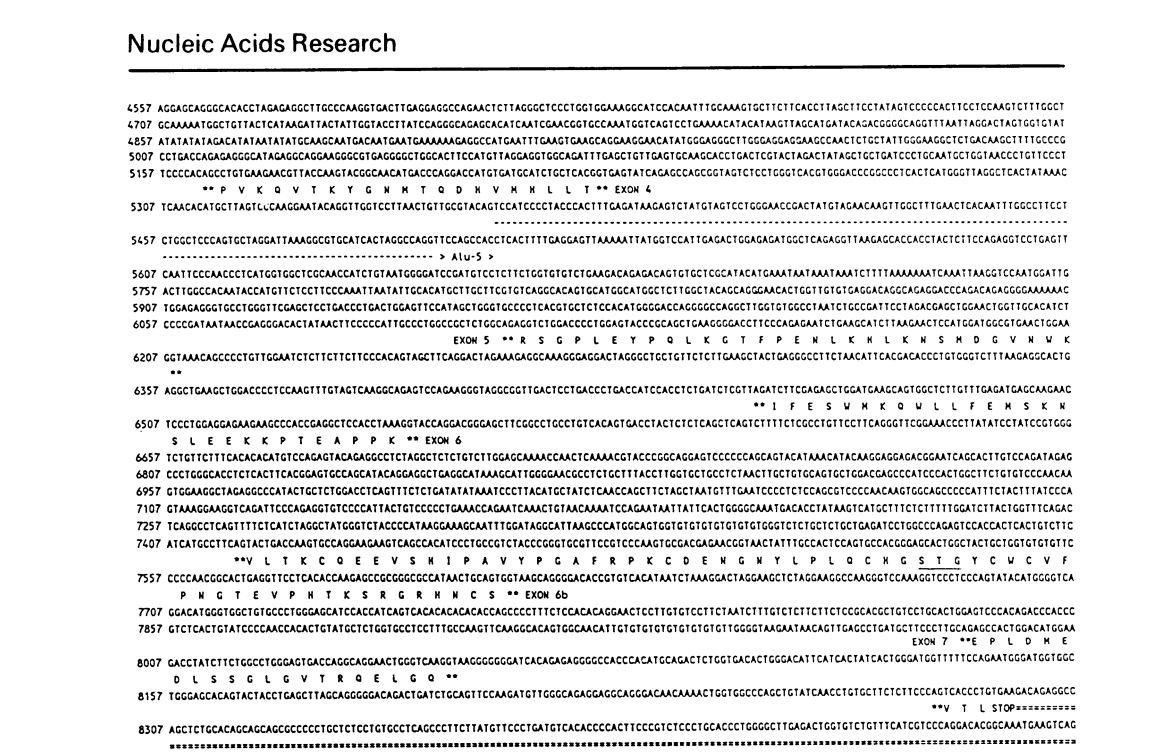

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