Partial nucleotide sequence of the avian erythroblastosis virus (AEV ES4)

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The avian erythroblastosis virus is an avian defective leukemia virus that carries and expresses two oncogenes v-erb A and v-erb B independently. We have sequenced the non oncogenic parts of the genome. Our sequence includes the retroviral genes gag and env, the long terminal repeats (LTR) and both the 5' and the 3' untranslated regions surrounding the coding sequences.

A/ Sequence of 1148 nucleotides at the 5' end of the AEV genome, including R (boldface italic letters), US (boldface letters), the 5' untranslated region (small letters), δ gag (uppercase letters) and the beginning of v-erb A (italic letters). Noticeable stretches are also underlined: the protein binding site (position 102), the packaging signal (position 216) (3), the splice donor site (position 394), the gag consensus enhancer "core" sequence (position 910) (11). δ gag sequence were found to be in the same reading frame than v-erb A (12) and no terminator codons were identified as previously expected from identification of the gag-erb A fusion protein.

B/ Sequence of 899 nucleotides at the 3' end of the AEV genome, including the 3' end of v-erb B (italic letters), δ env (uppercase letters), the 3' untranslated region (small letters), US (boldface letters), R (boldface italic characters). The polyuridylic tract (position 629), the "TATA box" (position 849) and the polyadenylation signal (position 872) are underlined.