Molecular Cloning and Characterization of the Human AE2 Anion Exchanger (SLC4A2) Gene

J. F. Medina,1 A. Acín and J. Prieto

Department of Medicine and Liver Unit, University Clinic and Medical School, University of Navarra, E-31080 Pamplona, Spain

Abstract of:

Genomics 39, 74 - 85 (1997)

The human AE2 gene (HGMW-approved symbol SLC4A2) encompasses over 17 kb and contains 23 exons intervened by 22 introns. The size range for the exons is 90-255 bp, whereas that for the introns is 80 by to 2.2 kb. Exon 1 consists solely of 5'-untranslated sequence, and exon 2 encodes the amino-terminal end of the antiport protein. Primer extension experiments suggest that there are multiple transcription initiation sites in leukocytes. The putative promoter region of

the human AE2 gene contains no obvious TATA or CCAAT elements in the expected positions but has GC boxes, proposed sites for binding Spl transcription factor. Those features, as well as the presence of several consensus elements such as GATA, LBP-1, E-box, CACC box, and T-antigen motif, indicate that the human AE2 promoter resembles the erythroid promoter of the human AE1 gene. The human AE2 gene (which has been previously mapped to chromosome 7) has three more introns than the human AE1 gene (mapped to chromosome 17), but downstream of intron 7 in the AE2 gene (corresponding to intron 4 in the AE1 gene), these two genes show a rather similar exon/intron organization.

Assessment of Luteal Blood Flow in Normal Early; Pregnancy

J. L. Alcázar, MD, M. J. Acosta, MD, C. Laparte, MD, M. L. Ruiz, MV

Department of Obstetrics and Gynecology, Clínica Universitaria de Navarra, School of Medicine, University of Navarra, Pamplona, Spain

Abstract of:

J Ultrasound Med 15: 53-56, 1996

A cross-sectional study was performed in 85 lowrisk singleton first trimester pregnancies to assess corpus luteum blood flow during this period. Gestational age, established by measuring crownrump length, ranged from 6 to 12 weeks. All cases were studied by transvaginal color, velocity imaging and pulsed Doppler ultrasonography. After corpus luteum blood flow was identified by color velocity imaging, the resistive index and pulsatility index were calculated to assess vascular resistance. Overall, detection rate of corpus luteum blood flow was 75.2%. No statistical differences were found in mean resistive index and pulsatility index among gestational weeks studied. Linear regression analysis showed that nonsignificant changes in resistive and pulsatility indices occur during the first weeks of normal early pregnancv ($R^2 = 0.0059$ for resistive index, $R^2 = 0.0008$ for pulsatility index). In conclusion, luteal blood flow is constant during normal early pregnancy. KEY WORDS: Corpus luteum; Color velocity imaging; Doppler ultrasonography; Pregnancy.