BACKGROUND

Prostaglandins are implicated in many physiologic and cellular processes, such as inflammation. NAD+-dependent 15-hydroxyprostaglandin dehydrogenase (PGDH) is the fundamental enzyme of prostaglandin degradation. PGDH, an ubiquitous enzyme, strongly reduces the biologic activity of these molecules by catalyzing the oxidation of the 15-hydroxyl group of prostaglandins to a keto group. Cortisol reduces PGDH activity in human placental cells. 11-β-hydroxysteroid dehydrogenase type II (HSD11B2) converts cortisol to cortisone. In preeclampsia, a disorder characterized by high blood pressure and protein in the urine during pregnancy and the postpartum period, HSD11B2 mRNA expression is reduced, leading to a decrease in HSD11B2 activity. Therefore, the diminished conversion of placental cortisol may lead to reduced PGDH mRNA expression by means of an autocrine or paracrine mechanism.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: HPGD (human) mapping to 4q34.1; Hpgd (mouse) mapping to 8 B2.

SOURCE

PGDH (H-3) is a mouse monoclonal antibody raised against amino acids 1-263 of PGDH of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.