SANTA CRUZ BIOTECHNOLOGY, INC.

Progesterone (Pg.53): sc-57409

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Progesterone is a C-21 steroid hormone that belongs to a class of hormones called progestogens; it is the major naturally occurring human progestogen. Progesterone functions in the female menstrual cycle, pregnancy and embryogenesis, and is produced in the adrenal glands, gonads, brain and, during pregnancy, in the placenta. Like other steroid hormones, Progesterone is synthesized from a derivative of cholesterol called pregnenolone. The Progesterone receptor a membrane-bound member of the steroid receptor superfamily, mediates the physiologic effects of Progesterone. The Progesterone gene (PGR) uses separate promoters and translational start sites to produce two almost identical isoforms, PRA and PRB, which are distinct transcription factors that mediate their own response genes and physiologic effects with little overlap. They are composed of a modulating N-terminal domain, a DNA binding domain and a C-terminal steroid binding domain.

REFERENCES

1. Kalkhoff, R.K., Jacobson, M. and Lemper, D. 1970. Progesterone, pregnancy and the augmented plasma Insulin response. J. Clin. Endocrinol. Metab. 31: 24-28.
2. Fantl, V.E., Wang, D.Y., Knyba, R.E. 1982. The production of high affinity monoclonal antibodies to Progesterone. J. Steroid Biochem. 17: 125-130.
3. Horwitz, K.B., Wei, L.L., Sedlacek, S.M. and d'Arville, C.N. 1985. Progestin action and Progesterone receptor structure in human breast cancer: a review. Recent Prog. Horm. Res. 41: 249-316.
4. Jung-Testas, I., Hu, Z.Y., Baulieu, E.E. and Robel, P. 1989. Neurosteroids: biosynthesis of pregnenolone and Progesterone in primary cultures of rat glial cells. Endocrinology 125: 2083-2091.
5. Prior, J.C. 1990. Progesterone as a bone-trophic hormone. Endocr. Rev. 11: 386-398.
6. Williams, S.P. and Sigler, P.B. 1998. Atomic structure of Progesterone complexed with its receptor. Nature 393: 392-396.
7. Szekeres-Bartho, J., Barakonyi, A., Polgar, B., Par, G., Faust, Z., Palkovics, T. and Szereday, L. 1999. The role of γ/δ T cells in Progesterone-mediated immunomodulation during pregnancy: a review. Am. J. Reprod. Immunol. 42: 44-48.
8. Spencer, T.E. and Bazer, F.W. 2002. Biology of Progesterone action during pregnancy recognition and maintenance of pregnancy. Front. Biosci. 7: 1879-1898.
9. Schumacher, M., Guennoun, R., Robert, F., Carelli, C., Gago, N., Ghoumari, A., Gonzalez Deniselle, M.C., Gonzalez, S.L., Ibanez, C., Labombarda, F., Coirini, H., Baulieu, E.E. and De Nicola, A.F. 2004. Local synthesis and dual actions of Progesterone in the nervous system: neuroprotection and myelination. Growth Horm. IGF Res. 14: S18-S33.

SOURCE

Progesterone (Pg.53) is a mouse monoclonal antibody raised against full length Progesterone of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Progesterone (Pg.53) is recommended for detection of Human Progesterone by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.