**BACKGROUND**

17-β Estradiol is a potent mammalian estrogenic hormone that is produced in the ovaries (by the granulosa cells), in the placenta, testis and possibly the adrenal cortex. The hormone is synthesized enzymatically from acetate, cholesterol, progesterone and testosterone. In addition to anatomic and physiological regulation of reproduction and secondary sex characteristics, it also influences activities such as bone growth, brain development and maturation and the intracellular concentrations of calcium and certain second messenger molecules. Research demonstrates salutary effects of 17-β Estradiol following trauma-hemorrhage on different cell types. 17-β Estradiol also induces improved circulation through relaxation of the aorta and has an anti-apoptotic effect on endothelial cells. 17-β Estradiol is also implicated in the attenuation of H₂O₂-induced apoptosis via ER-dependent activation of caspase-9 and -3 in rat endothelial cells through mitochondria.

**REFERENCES**


**SOURCE**

17-β Estradiol (SE500) is a mouse monoclonal antibody raised against 17-β Estradiol conjugated to BSA.