Product Information Sheet

Polyclonal Anti-Estrogen receptor β, ER β

Catalogue No. PA1126

Lot No. 08J01

Ig type: rabbit IgG

Size: 100μg/vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunogen

A synthetic peptide mapping at the N-terminal of human ERβ, different from the related mouse sequence by four amino acids.

Purity

Immunogen affinity purified.

Application

Western blot

At 0.5-1μg/ml with the appropriate system to detect ERβ in cells and tissues.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Reconstitution

0.2ml of distilled water will yield a concentration of 500μg/ml.

To reorder contact us at:

Antagene, Inc.

Toll Free: 1(866)964-2589

email: Info@antageneinc.com

Storage

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

BACKGROUND

Estrogen receptor-beta, referred to as ESR2, is a member of the superfamily of nuclear receptors, which can transduce extracellular signals into transcriptional responses. This gene is mapped to 14q and comprises 8 exons spanning approximately 40 kb. ESR2 is expressed in multiple tissues, including developing spermatids of the testis and in ovarian granulosa cells1. ESR-beta is homologous to the previously identified ESR-alpha and has an overlapping but nonidentical tissue distribution. The DNA-binding domain of ESR-beta is 96% conserved compared to ESR, and the ligand-binding domain shows 58% conserved residues. ESR-beta is expressed in human thymus, spleen, ovary, and testis2. Rat ESR-beta is expressed in rat prostate and ovary and is homologous to rat ESR (95% conserved DNA-binding domain; 55% conserved ligand-binding domain)3. ESR2 mRNA was coexpressed with ESR1 and its splice variants in 60% of prolactinomas, 100% of mixed growth hormone /prolactin tumors, and 29% of gonadotroph tumors. ESR2 gene expression was not limited to ESR1-positive tumor subtypes, however, and was also found in 100% of null cell tumors, 80% of somatotroph tumors, and 60% of corticotroph tumors4.

REFERENCE

1. Enmark, E.; Pelto-Huikko, M.; Grandien, K.; Lagercrantz, S.; Lagercrantz, J.; Fried, G.; Nordenskjold, M.; Gustafsson, J.-A. : Human estrogen receptor beta-gene structure, chromosomal localization, and expression pattern. J. Clin. Endocr. Metab. 82: 4258-4265, 1997.
2. Mosselman, S.; Polman, J.; Dijkema, R. : ER-beta: identification and characterization of a novel human estrogen receptor. FEBS Lett. 392: 49-53, 1996.
3. Kuiper, G. G. J. M.; Enmark, E.; Pelto-Huikko, M.; Nilsson, S.; Gustafsson, J.-A. : Cloning of a novel estrogen receptor expressed in rat prostate and ovary. Proc. Nat. Acad. Sci. 93: 5925-5930, 1996.
4. Chaidarun, S. S.; Swearingen, B.; Alexander, J. M. : Differential expression of estrogen receptor-beta (ER-beta) in human pituitary tumors: functional interactions with ER-alpha and a tumor-specific splice variant. J. Clin. Endocr. Metab. 83: 3308-3315, 1998.