Datasheet

Anti-ERβ1 Clone PPG5/10

Product Name	Anti Human ERβ1 Clone PPG5/10
Catalogue Number	PPG5/10
Clone, Isotype	PPG5/10, IgG2a
Format	IgG
Tested Applications	IF, IHC, WB

Description:
Estrogen receptors are commonly over-expressed in cancers. Clone PPG5/10 recognizes Estrogen Receptor Beta (ERβ) 1 and is useful in determining the expression of ERβ1 in cancer cells, mainly via immunohistochemistry.

Product Details:

Form in stock: IgG, purified – 1.0 mg/mL. Also available as unpurified supernatant.

Host: Mouse

Specificity: Synthetic peptide CEDSKSKEGSQNPQSQ derived from the C terminus of human ERβ1.

Human Histology positive control: Ovary

Fusion partner: Spleen cells from immunised Balb/c mice were fused with cells of the mouse SP2/0 myeloma cell line.

Storage: Store at +4°C or -20°C. Avoid repeated freezing and thawing.

Shelf life: 18 months from date of dispatch.

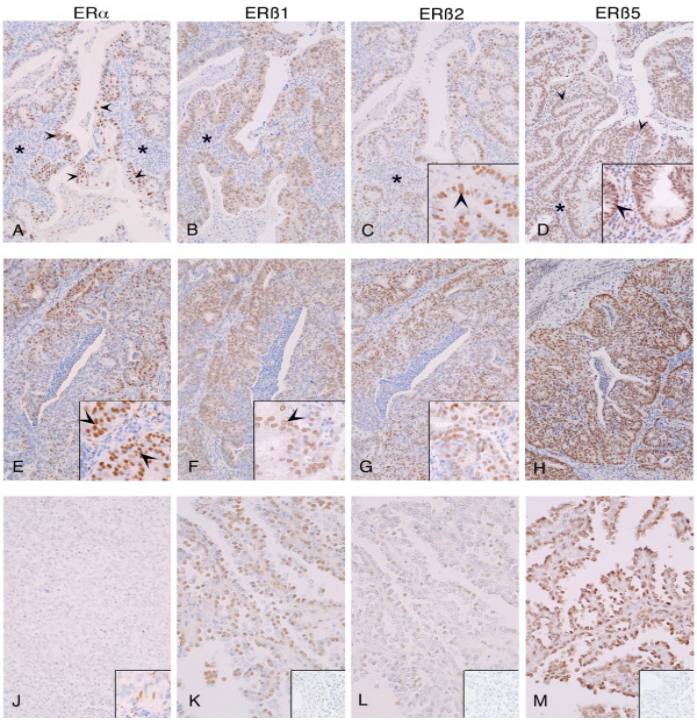
Regulatory/ Restrictions: For research and commercial purposes.

Applications	Suggested Dilution
Immunofluorescence	1:250
Immunohistochemistry	1:5-1:50
Western Blot	1:500 [5]

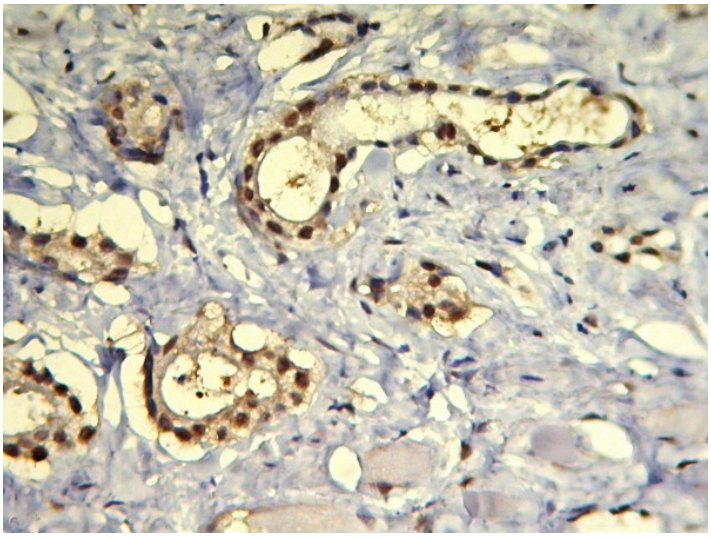
Calibre Scientific UK, Unit 5A, R-Evolution @
The Advanced Manufacturing Park, Selden Way, Rotherham, S60 5XA
Tel: +44(0)114 224 2257 Email: info@bioservuk.com

© Bioserv UK 2017

Applications:

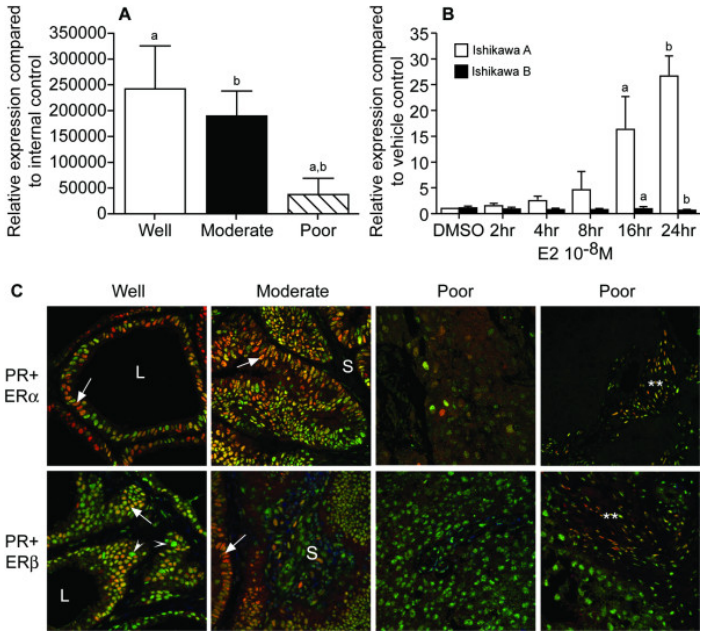


Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **IHC-P**
Image caption: Immunoexpression of ERs in endometrial cancers. Tissues were classified as well (A-D), moderately (E-H) or poorly (J-M) differentiated; main panels show closely adjacent sections from three cancer blocks to allow direct comparisons. (Collins, F et al.)
Dilution used: 1:40



Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **IHC-P**
Image caption: Prostate carcinoma Gleason score 3+3 showing > 70% positive nuclei stained by IHC for ER-b. (Asgari, M et al.)
Dilution used: 1:2

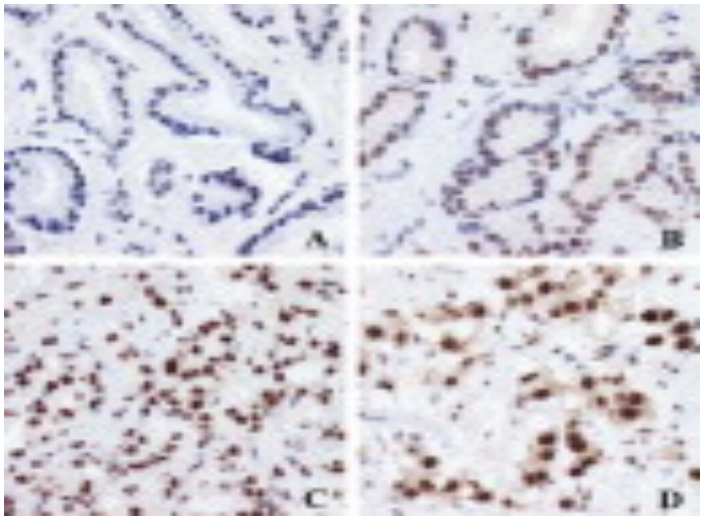
© Bioserv UK 2017



Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **immunofluorescence**

Image caption: Expression of PR paralleled that of ERα not ERβ... C. Fluorescent co-localisation as carried out using antibodies specific for ERα or ERβ1 (both green) and PR (red). The cancers illustrated were classified as well (code 1614), moderately (code 1930) or poorly (c, codes 0001 and 1176) differentiated; at least 8 samples were analysed in each group. Co-expression was detected as yellow/orange immunofluorescence. In the well and moderately differentiated cancers expression of PR was most intense in epithelial cells and broadly overlapped with that of ERα (e.g. in cells indicated by arrows)... (Collins, F et al.)

Dilution used: 1:40

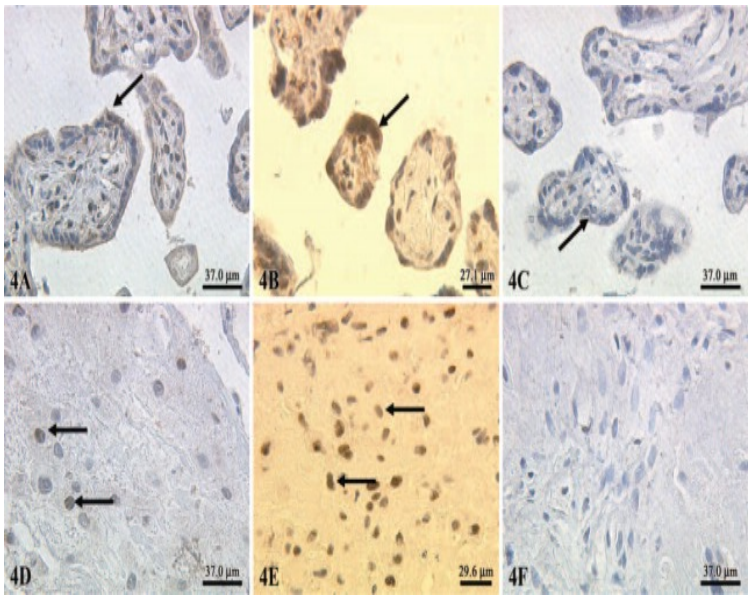


Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **IHC-P**

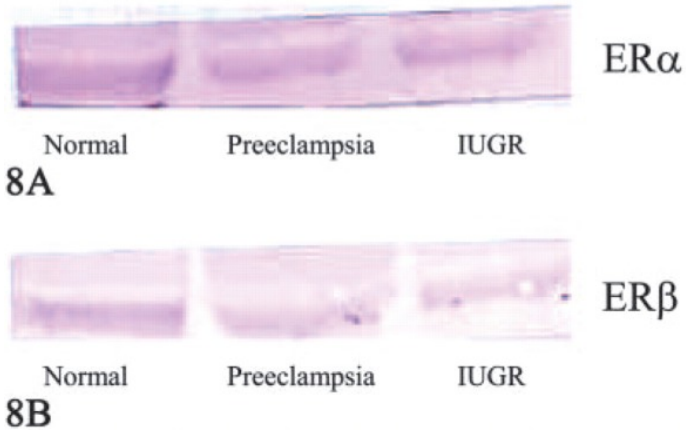
Image caption: Immunohistochemical localization of ER-β using PPG5/10 antibody... (Torlakovic, E et al.)

Dilution used: 1:2

© Bioserv UK 2017

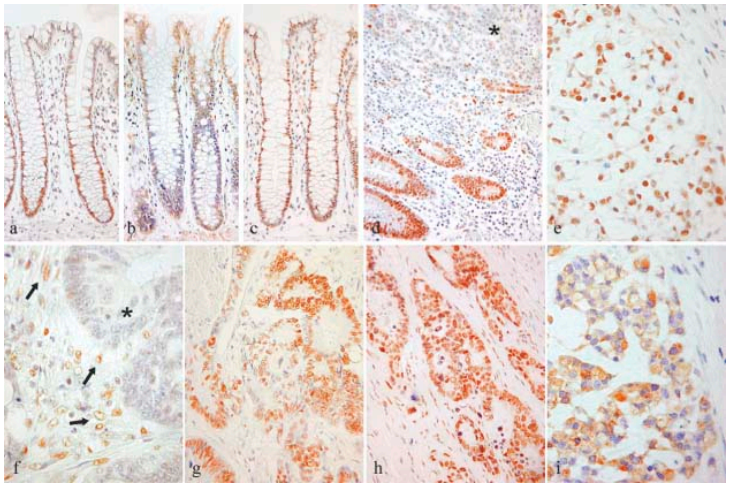


Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **IHC-P**
Image caption: Expression of estrogen receptor (ER)β (indicated by arrows) in normal syncytiotrophoblasts preeclamptic (A), syncytiotrophoblast (B), and intrauterine growth restriction (C). Expression of ERβ was also detected in extravillous trophoblast cells of normal-term placentas (D), preeclamptic placentas (E), and intrauterine growth-restricted placentas (F); X25 lens (Schiessl, B et al.)
Dilution used: 1:700

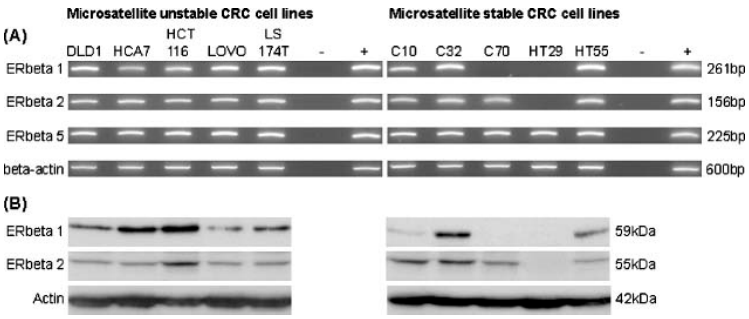


Clone PPG5/10 used to detect expression of ERβ1 in cancer tissue by **Western Blot**
Image caption: ... (**B**) Western blot of ERβ detection in villous trophoblast cell lysate. Lane 1: normal placenta; Lane 2: preeclamptic placenta; Lane 3: IUGR placenta... (Schiessl, B et al.)

© Bioserv UK 2017



Clone PPG5/10 used to detect expression of ERβ1 in colorectal tissue by **IHC-P**
Image caption: Examples of ERβ1 (a, d, e), ERβ2 (b, f, g), ERβ5 (c, h) and TFF1 (i) immunohistochemistry performed on normal colorectal epithelium (a–c) and colorectal carcinoma (d–i)... (Wong, N. A et al.)
Dilution used: 1:50



Clone PPG5/10 used to detect expression of ERβ1 in colorectal tissue by **Western Blot**
Image caption: (A) ERβ1, 2 and 5 mRNA expression (assessed by RT-PCR) and (B) ERβ1 and 2 protein expression (assessed by western blotting) by 10 colorectal carcinoma cell lines... (Wong, N. A et al.)
Dilution used: 1:500

© Bioserv UK 2017

References:

1. Collins, F., MacPherson, S., Brown, P., Bombail, V., Williams, A. R., Anderson, R. A., … Saunders, P. T. (2009). Expression of oestrogen receptors, ERα, ERβ, and ERβ variants, in endometrial cancers and evidence that prostaglandin F may play a role in regulating expression of ERα. *BMC Cancer*, *9*, 330.
2. Asgari, M., & Morakabati, A. (2011). Estrogen receptor beta expression in prostate adenocarcinoma. *Diagnostic Pathology*, *6*, 61.
3. Torlakovic, E., Lilleby, W., Torlakovic, G., Fosså, S., Chibbar, R., (2009). Prostate carcinoma expression of estrogen receptor-β as detected by PPG5/10 antibody has positive association with primary Gleason grade and Gleason score. *Human Pathology*, *Volume 33, Issue 6, Pages 646-651, ISSN 0046-8177*.
4. Schiessl, B., Mylonas, I., Hantschmann, P., Kuhn, C., Schulze, S., Kunze, S., Jeschke, U. (2005). Expression of Endothelial NO Synthase, Inducible NO Synthase, and Estrogen Receptors Alpha and Beta in Placental Tissue of Normal, Preeclamptic, and Intrauterine Growth-restricted Pregnancies. *Journal of Histochemistry and Cytochemistry*, *53*(12*), 1441–1449.*
5. Wong, N. A., Malcomson, R. D., Jodrell, D. I., Groome, N. P., Harrison, D. J. and Saunders, P. T. (2005). ERβ isoform expression in colorectal carcinoma: an *in vivo* and *in vitro* study of clinicopathological and molecular correlates. *J. Pathol., 207: 53–60.*
6. Rago, V., Romeo, F., Giordano, F., Ferraro, A., Andò, S., Carpino, A. (2009). Identification of ERβ1 and ERβ2 in human seminoma, in embryonal carcinoma and in their adjacent intratubular germ cell neoplasia. *Reproductive Biology and Endocrinology : RB&E*, *7*, *56*. **IHC-P, Dilution used 1:100**
7. Ciucci, A., Meco, D., De Stefano, I., Travaglia, D., Zannoni, G. F., Scambia, G., … Gallo, D. (2014). Gender Effect in Experimental Models of Human Medulloblastoma: Does the Estrogen Receptor β Signaling Play a Role? *PLoS ONE*, *9(7), e101623*. **IHC-P, Dilution used 1:50**
8. Zannoni G F, Ciucci A, Marucci G, Travaglia D, Stigliano E, Foschini M P, Scambia G & Gallo D (2016) *Histopathology 68, 541–548.* **IHC-P, Dilution used 1:50**

© Bioserv UK 2017