Data Sheet
Progesterone Receptor
liquid mouse monoclonal antibody NCL-L-PGR-312/2

Specificity	Human progesterone receptor. A and B forms are detected in Western blotting procedures but only the A form is detected in immunohistochemical procedures. This may be the result of the epitope being inaccessible in the folded B form of the progesterone receptor protein.
Clone	16
Ig Class	IgG1
Antigen used for immunisations	Prokaryotic recombinant protein corresponding to the N-terminal region of the A form of the human progesterone receptor.
Hybridoma partner	Mouse myeloma (p3-NS1-Ag4-1).
Preparation	Liquid tissue culture supernatant containing 15mM sodium azide. Volume as indicated on the vial label.
Effective on frozen tissue	Yes. Optimum fixative Zamboni's, 10 minutes at 25^{o}C (see Stefanini et al., 1967).
Effective on paraffin wax embedded tissue	Yes (using the high temperature antigen unmasking technique: see overleaf).
Recommendations on use	Immunohistochemistry: Typical working dilution 1:100 - 1:200. High temperature antigen unmasking technique. 60 minutes primary antibody incubation at 25^{o}C. Standard ABC technique. Western Blotting: Typical working dilution 1:20,000 - 1:40,000.
Positive Controls	**Immunohistochemistry –** Endometrium. **Western Blotting** - T47D cell line.
Staining pattern	Nuclear
Storage and stability	Store liquid antibody at 4^{o}C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. Prepare working dilutions on the day of use.

General Overview

The human progesterone receptor (PR) is expressed as two isoforms, PRA (94kD) and PRB (114kD), which function as ligand-activated transcription factors. These two isoforms are transcribed from distinct estrogen receptor (ER)-inducible promoters within a single copy PR gene. The PRA form is a truncated version of the PRB form, lacking the first 164 N-terminal amino acids. In humans, PRA acts as a transdominant repressor of the transcriptional activity of PRB, glucocorticoid receptor, ER, androgen receptor and mineralocorticoid receptor. PRB functions mainly as a transcriptional activator. PRB is expressed strongly in endometrial glandular and stromal nuclei in the proliferative phase of the menstrual cycle and weakly during the secretory phase and early pregnancy.

General References

Leake R, Barnes D, Pinder S, et al.. Journal of Clinical Pathology. **53 (8)**: 634-635 (2000).
Clark G M and McGuire W L. Proceedings of the Royal Society of Edinburgh. **95B**: 145-150 (1989).
Giri D D, Goepel J R, Rogers K, et al.. Journal of Clinical Pathology. **41**: 444-447 (1988).
Raemakers J, Beex L, Pieters G, et al.. European Journal of Cancer and Clinical Oncology. **23 (4)**: 443-447 (1987).
Gross G, Clark G, Chamness G, et al.. Cancer Research. **44**: 837-840 (1984).
Clark G M, McGuire W L, Hubay C A, et al.. The New England Journal of Medicine. **309 (22)**: 1343-1347 (1983).
Mason B H, Holdaway I M, Mullins P R, et al.. Cancer Research. **43**: 2985-2990 (1983).
Stewart J, King R, Hayward J, et al.. Breast Cancer Research and Treatment. **2**: 243-251 (1982).
Stefanini M, De Martino C, Zamboni L. Nature. **216**: 173-174 (1967).