

p-PR (SPM211): sc-56862

BACKGROUND

The effects of progesterone are mediated by two functionally different isoforms of the progesterone receptor, PR-A and PR-B, which are transcribed from distinct, estrogen-inducible promoters within a single copy of the PR gene. The first 164 amino acids of PR-B are absent in PR-A. Progesterone-bound PR-A and PR-B have different transcription activation properties. Specifically, PR-B functions as a transcriptional activator in most cell and promoter contexts, while PR-A is transcriptionally inactive and functions as a strong ligand-dependent transdominant repressor of steroid hormone receptor transcriptional activity. An inhibitory domain (ID), which maps to the amino-terminus of the receptor, exists within both PR isoforms. Interestingly, the ID is functionally active only in PR-A and is necessary for steroid hormone transrepression by PR-A, suggesting that PR-A and PR-B may have different conformations in the cell. Phosphorylation of human PR occurs on at least nine serine residues. Phosphorylation of three of the residues (Ser 102, Ser 294 and Ser 345) is hormone-inducible; the others are basal but hormone-stimulated.

REFERENCES

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RESEARCH USE

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

CHROMOSOMAL LOCATION

Genetic locus: PGR (human) mapping to 11q22.1.

SOURCE

p-PR (SPM211) is a mouse monoclonal antibody raised against a Ser phosphorylated synthetic PR peptide corresponding to amino acids 184-196 of human origin.

PRODUCT

Each vial contains 50 µg IgG₁ in 500 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-PR (SPM211) is recommended for detection of Ser 190 phosphorylated PR of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PR siRNA (h): sc-29457, PR shRNA Plasmid (h): sc-29457-SH and PR shRNA (h) Lentiviral Particles: sc-29457-V.

Molecular Weight of PR-A: 81 kDa.

Molecular Weight of PR-B: 116 kDa.

Positive Controls: T-47D cell lysate: sc-2293, MCF7 whole cell lysate: sc-2206 or PC-3 cell lysate: sc-2220.

STORAGE

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

PROTOCOLS

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