

# Progesterone Receptor Signaling Antibody Sampler Kit

Cat# AK0251

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

## PRODUCT DESCRIPTION

Human progesterone receptor (PR) is expressed as two forms: the full length PR-B and the short form PR-A. PR-A lacks the first 164 amino acid residues of PR-B. Both PR-A and PR-B are ligand activated, but differ in their relative ability to activate target gene transcription. The activity of PR is regulated by phosphorylation; at least seven serine residues are phosphorylated in its amino-terminal domain. Three sites (Ser81, Ser102, and Ser162) are unique to full length PR-B, while other sites (Ser190, Ser294, Ser345, and Ser400) are shared by both isoforms. Phosphorylation of PR-B at Ser190 (equivalent to Ser26 of PR-A) is catalyzed by CDK2. Mutation of Ser190 results in decreased activity of PR, suggesting that the phosphorylation at Ser190 may be critical to its biological function. Research studies have demonstrated ligand-dependent phosphorylation of PR-B at Ser345 is catalyzed by MAPK and plays an important role in mediating the proliferation of breast cancer cells. Investigators have shown that Ser345-phosphorylated PR-B associates with Sp1 to regulate EGFR and p21 transcription. PR signaling has been shown to crosstalk with other kinase signaling cascades. Upon stimulation and the subsequent interaction with estrogen receptor  $\alpha$  and c-Src, PR-B has been shown to promote the activation of the Src/p21ras/Erk pathway.

## PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
<b>A340370</b>	Phospho-ERK 1/2 (Thr202/Tyr204) Polyclonal Antibody	20 $\mu$ L	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
<b>A340280</b>	Phospho-PR (Ser190) Polyclonal Antibody	20 $\mu$ L	WB, IHC, ELISA	Human, Monkey	Rabbit
<b>A340319</b>	Phospho-PR (Ser294) Polyclonal Antibody	20 $\mu$ L	WB, IF, ELISA	Human, Mouse, Rat	Rabbit
<b>A340649</b>	PR Polyclonal Antibody	20 $\mu$ L	WB, IHC, IF, ELISA	Human	Rabbit
<b>A340295</b>	Phospho-c-Src (Tyr419) Polyclonal Antibody	20 $\mu$ L	WB, IHC, ELISA	Human, Mouse, Rat	Rabbit
<b>A1013s</b>	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120 $\mu$ L	WB, ELISA	Rabbit	Goat

## **PRODUCT USE LIMITATION**

These products are intended for research use only.