Anti-phospho-Estrogen Receptor-α [pSer167]  
Developed in Rabbit, Affinity Isolated Antibody  

Product Number E 7905  

Product Description  
Anti-phospho-Estrogen-α Receptor [pSer\(^{167}\)] is developed in rabbit using a synthetic phosphorylated peptide derived from the human region of ER that contains serine 167 as immunogen. The antiserum is affinity purified using epitope-specific affinity chromatography.  

The antibody detects human ER-α. Other species have not been tested. It has been used in ELISA, immunoprecipitation and immunoblotting applications.  

The estrogen receptor alpha (ER) is a broadly expressed transcription factor that controls a number of genes involved in cellular differentiation and proliferation. ER contains two transcriptionally active domains: the N-terminal domain (AF1) is constitutively active, while the C-terminal domain (AF-2) is hormone-dependent. ER is subject to post-translational modification, including phosphorylation of serine residues 104, 106, 118, and 167.  

This antibody specifically recognizes human estrogen receptor-alpha when phosphorylated at serine 167, a site that influences AF-1 dependent transcriptional activity. This phosphorylation is catalyzed by the MAPK pathway, potentially through the 90 kDa ribosomal S6 kinase (pp90rsk1). Serine 167 is also a consensus Akt substrate.  

Reagent  
Anti-phospho-Estrogen-α Receptor (pSer\(^{167}\)) is provided in phosphate buffered saline, pH 7.4 containing 0.02% sodium azide.  

Precautions and Disclaimer  
Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.  

Storage/Stability  
Store at −20 °C. Upon initial thawing freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Do not store in frost-free freezers. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.  

Product Profile  
The supplied reagent is sufficient for 10 blots.  

A recommended working concentration of 0.5-2.0 µg/mL was determined by immunoblotting. For ELISA recommended concentration is 0.1-1.0 µg/mL and for immunoprecipitation 3-5 µg/extract from 10⁷ MCF-7 breast adenocarcinoma cells.  

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.  

References  

AH/JK 4/16/2004