IRS-1 (phospho-S307) polyclonal antibody

Catalog: BS4104  Host: Rabbit  Reactivity: Human, Mouse, Rat

**BackGround:**
IRS-1, a major substrate of the insulin receptor, is phosphorylated in response to stimulation of cells by insulin, insulin-like growth factor 1 (IGF-1) and interleukin 4 (IL-4). IRS-1 is phosphorylated on serine, threonine and tyrosine residues in a variety of tissues. An insulin-sensitive serine/threonine kinase casein kinase II mediates a portion of the insulin-stimulated serine/threonine phosphorylation of overexpressed IRS-1 in vivo. Thr 502 is identified as the major casein kinase II-catalyzed phosphorylation site in rat IRS-1, and Ser 99 is an additional phosphorylation site catalyzed by casein kinase II. Thus, casein kinase II-catalyzed phosphorylation of IRS-1 may be a component of the intracellular insulin signaling cascade. IRS-1 contains three putative binding sites for 14-3-3 (Ser 270, Ser 374 and Ser 641) and the motif around Ser 270 is located in the phosphotyrosine binding domain of IRS-1, which is responsible for the interaction with the insulin receptor.

**Product:**
1 mg/ml in Phosphate buffered saline (PBS) with 0.05% sodium azide, approx. pH 7.2.

**Molecular Weight:**
~132, 180 kDa

**Swiss-Prot:**
P35568

**Purification&Purity:**
The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

**Applications:**
WB: 1:500~1:1000
IHC: 1:50~1:200

**Storage&Stability:**
Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze-thaw cycles.

**Specificity:**
P-IRS-1 (S307) pAb detects endogenous levels of IRS-1 protein only when phosphorylated at Ser307

**DATA:**
Western blot (WB) analysis of P-IRS-1 (S307) pAb at 1:500 dilution
Lane1: Hela cell lysate treated with insulin (100nM, 15mins)
Lane2: HEK293T cell lysate treated with insulin (100nM, 15mins)
Lane3: PC12 cell lysate treated with insulin (100nM, 15mins)

Immunohistochemistry (IHC) analyzes of P-IRS-1 (S307) pAb in paraffin-embedded human breast carcinoma tissue at 1:100.

**Note:**
For research use only, not for use in diagnostic procedure.