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AP02489PU-N Polyclonal Antibody to IRS1 pSer639 - Aff - Purified

Alternate names: IRS-1, Insulin receptor substrate 1

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: Insulin receptor substrates (IRS) are responsible for several insulin related activities, such as glucose homeostasis, cell growth, cell transformation, apoptosis and insulin signal transduction. Serine/threonine phosphorylation of IRS1 has been demonstrated to be a negative regulator of insulin signaling and is responsible for its degradation, although IRS1 degradation pathways are not well understood. IRS1 has also been shown to be constitutively activated in cancers such as breast cancer, Wilm's tumors, and adrenal cortical carcinomas, thus making IRS1 phosphorylation and subsequent degradation an attractive therapeutic target. To date there have been four subtypes identified: IRS1, 2, 3 and 4, with IRS1 being widely expressed.

Uniprot ID: P35568

NCBI: NP_005535.1

GeneID: 3667

Host: Rabbit

Immunogen: The antiserum was produced against synthesized phosphopeptide derived from human IRS-1 around the phosphorylation site of serine 639 (P-K-S*p*-V-S).

Format: **State:** Liquid purified IgG fraction.
Purification: Affinity Chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Buffer System: BPS (without Mg2+ and Ca2+), pH 7.4 containing 150mM NaCl, 0.02% Sodium Azide and 50% Glycerol.

Applications: Western Blot: 1/500~1/10000.
Immunohistochemistry on Paraffin Sections: 1/50~1/100.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody detects endogenous levels of IRS-1 only when phosphorylated at Serine 639.
Species: Human, Mouse and Rat.
Other species not tested.

Storage: Store the antibody (in aliquots) at -20°C.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
1. Ozes ON, et al. (2001) Proc Natl Acad Sci U S A; 98(8): 4640-4645
2. Tzatsos A, et al. (2006) Mol Cell Biol; 26(1): 63-76
3. Steppan CM, et al. (2005) Mol Cell Biol; 25(4): 1569-1575
4. Batty IH, et al. (2004) Biochem J; 379(Pt 3): 641-651

Pictures:

Figure 1. Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue, using IRS-1 antibody (AP02489PU-S, AP02489PU-N).

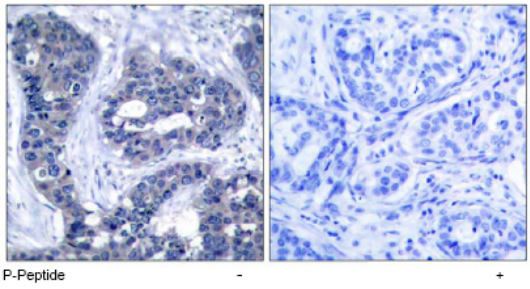

Figure 2. Western blot analysis of extracts from 293 cells (Lane 1) and 293 cells treated with EGF (200ng/ml, 15min) using IRS-1 (phospho-Ser639) antibody (AP02489PU-S, AP02489PU-N).