10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IRS2 Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7789B

Specification

IRS2 Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	Q9Y4H2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**137334**
Antigen Region	**1309-1338**

IRS2 Antibody (C-term) - Additional Information

Gene ID 8660

Other Names
Insulin receptor substrate 2, IRS-2, IRS2

Target/Specificity
This IRS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1309-1338 amino acids from the C-terminal region of human IRS2.

Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
IRS2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

IRS2 Antibody (C-term) - Protein Information

Name IRS2

Function Signaling adapter protein that participates in the signal transduction from two

prominent receptor tyrosine kinases, insulin receptor/INSR and insulin-like growth factor I receptor/IGF1R (PubMed:25879670). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism (PubMed:24616100). Upon phosphorylation by the insulin receptor, functions as a signaling scaffold that propagates insulin action through binding to SH2 domain-containing proteins including the p85 regulatory subunit of PI3K, NCK1, NCK2, GRB2 or SHP2 (PubMed:15316008, PubMed:19109239). Recruitment of GRB2 leads to the activation of the guanine nucleotide exchange factor SOS1 which in turn triggers the Ras/Raf/MEK/MAPK signaling cascade (By similarity). Activation of the PI3K/AKT pathway is responsible for most of insulin metabolic effects in the cell, and the Ras/Raf/MEK/MAPK is involved in the regulation of gene expression and in cooperation with the PI3K pathway regulates cell growth and differentiation. Acts a positive regulator of the Wnt/beta- catenin signaling pathway through suppression of DVL2 autophagy- mediated degradation leading to cell proliferation (PubMed:24616100). Plays a role in cell cycle progression by promoting a robust spindle assembly checkpoint (SAC) during M-phase (PubMed:32554797). In macrophages, IL4-induced tyrosine phosphorylation of IRS2 leads to the recruitment and activation of phosphoinositide 3-kinase (PI3K) (PubMed:19109239).

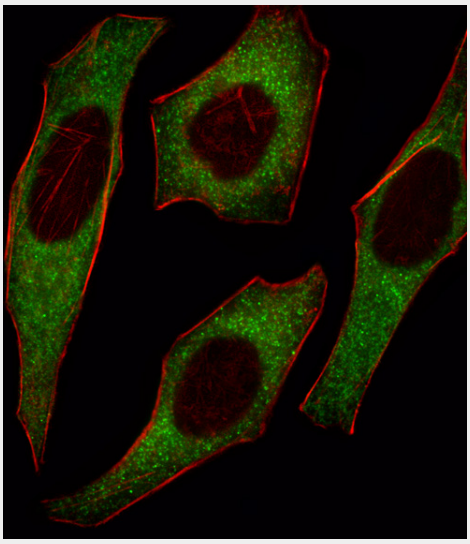
Cellular Location
Cytoplasm, cytosol {ECO:0000250|UniProtKB:P81122}

IRS2 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

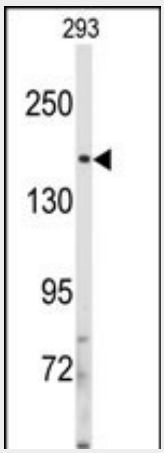
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IRS2 Antibody (C-term) - Images

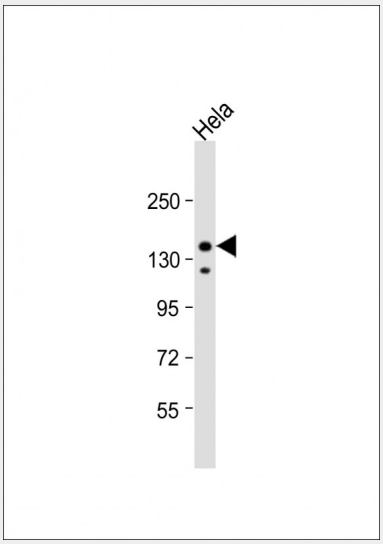


Fluorescent image of Hela cell stained with IRS2 Antibody (C-term)(Cat#AP7789b).Hela cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with

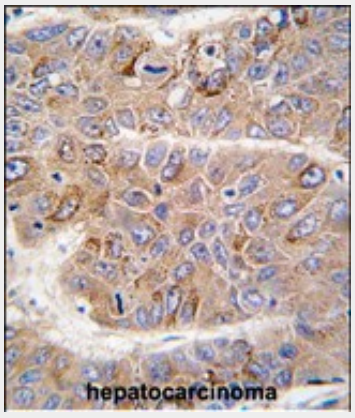
IRS2 primary antibody (1:25, 1 h at 37℃). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37℃).Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37℃).IRS2 immunoreactivity is localized to Cytoplasm significantly.



Western blot analysis of anti-IRS2 Antibody (C-term) (Cat.#AP7789b) in 293 cell line lysates (35ug/lane). IRS2 (arrow) was detected using the purified Pab.



Anti-IRS2 Antibody (C-term) at 1:1000 dilution + Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 137 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



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Formalin-fixed and paraffin-embedded human hepatocarcinoma tissue reacted with IRS2 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

IRS2 Antibody (C-term) - Background

Insulin receptor substrate 2, a cytoplasmic signaling molecule that mediates effects of insulin, insulin-like growth factor 1, and other cytokines by acting as a molecular adaptor between diverse receptor tyrosine kinases and downstream effectors. This protein is phosphorylated by the insulin receptor tyrosine kinase upon receptor stimulation, as well as by an interleukin 4 receptor-associated kinase in response to IL4 treatment.

IRS2 Antibody (C-term) - References

Hagg,D.A., Int. J. Mol. Med. 21 (6), 697-704 (2008)
Platanias,L.C., J. Biol. Chem. 271 (1), 278-282 (1996)
Sun,X.J., Nature 377 (6545), 173-177 (1995)