

#### IRS2 Rabbit mAb

**Catalog # AP77123** 

### **Specification**

#### IRS2 Rabbit mAb - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Calculated MW

WB <u>O9Y4H2</u> Human, Mouse, Rat Rabbit Monoclonal Antibody 137334

## IRS2 Rabbit mAb - Additional Information

**Gene ID 8660** 

Other Names IRS2

**Dilution** WB~~1/500-1/1000

Format Liquid

### IRS2 Rabbit mAb - 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: <a href="http://www.uniprot.org/citations/25879670" target=" blank">25879670</a>). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism (PubMed:<a href="http://www.uniprot.org/citations/24616100" target=" blank">24616100</a>). 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: <a href="http://www.uniprot.org/citations/15316008" target="\_blank">15316008</a>, PubMed:<a href="http://www.uniprot.org/citations/19109239" target="\_blank">19109239</a>). Recruitment of GRB2 leads to the activation of the quanine 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: <a href="http://www.uniprot.org/citations/24616100" target=" blank">24616100</a>). Plays a role in cell cycle progression by promoting a robust





spindle assembly checkpoint (SAC) during M-phase (PubMed:<a href="http://www.uniprot.org/citations/32554797" target="\_blank">32554797</a>). In macrophages, IL4-induced tyrosine phosphorylation of IRS2 leads to the recruitment and activation of phosphoinositide 3-kinase (PI3K) (PubMed:<a href="http://www.uniprot.org/citations/19109239" target="\_blank">19109239</a>).

# **Cellular Location**

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

### IRS2 Rabbit mAb - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

### IRS2 Rabbit mAb - Images

