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IRS1 (17G5) Rabbit Monoclonal Antibody

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Catalog # AP93676

Product Information

Application	WB, IHC-P, ICC, FC, IF
Primary Accession	P35568
Reactivity	Human
Clonality	Monoclonal
Calculated MW	131591

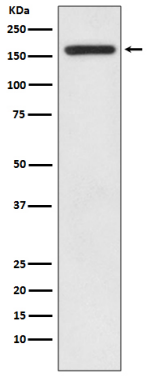
Additional Information

Gene ID	3667
Other Names	Insulin receptor substrate 1, IRS-1, IRS1
Dilution	WB~~1:1000 IHC-P~~N/A ICC~~N/A FC~~1:10~50 IF~~1:50~200
Storage Conditions	-20℃

Protein Information

Name	IRS1
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:7541045, PubMed:33991522, PubMed:38625937). Plays therefore an important role in development, growth, glucose homeostasis as well as lipid metabolism (PubMed:19639489). 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:11171109, PubMed:8265614). 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).
Cellular Location	Cytoplasm. Nucleus. Note=Nuclear or cytoplasmic localization of IRS1 correlates with the transition from proliferation to chondrogenic differentiation.

Images



Western blot analysis of IRS1 expression in HEK293 cell lysate.