Insig1 (Phospho-Ser207) Antibody

Catalog No: #SAB663

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	Insig1 (Phospho-Ser207) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was purified from rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Applications	WB
Species Reactivity	Human
Specificity	Insig1(Phospho-Ser207) Antibody detects endogenous levels of Insig1 only when phosphorylated at serine 207.
Immunogen Description	A synthesized peptide derived from human Insig1 around the phosphorylation site of S207.
Other Names	Insulin-induced gene 1 protein,INSIG-1
Uniprot	O15503
GeneID	3638
SDS-PAGE MW	30kDA
Concentration	1 mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl,0.02% sodium azide.
Storage	Store at --20°C/1 year

Application Details

Western Blot: 1/500 - 1/2000

Background

Oxysterol-binding protein that mediates feedback control of cholesterol synthesis by controlling both endoplasmic reticulum to Golgi transport of SCAP and degradation of HMGCR (PubMed:12202038, PubMed:12535518, PubMed:16168377, PubMed:16399501, PubMed:16606821, PubMed:32322062). Acts as a negative regulator of cholesterol biosynthesis by mediating the retention of the SCAP-SREBP complex in the endoplasmic reticulum, thereby blocking the processing of sterol regulatory element-binding proteins (SREBPs) SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:12202038, PubMed:16399501, PubMed:32322062). Binds oxysterol, including 25-hydroxycholesterol, regulating interaction with SCAP and retention of the SCAP-SREBP complex in the endoplasmic reticulum (PubMed:32322062). In presence of oxysterol, interacts with SCAP, retaining the SCAP-SREBP complex in the endoplasmic reticulum, thereby preventing SCAP from escorting SREBF1/SREBP1 and SREBF2/SREBP2 to the Golgi (PubMed:15899885, PubMed:32322062). Sterol deprivation or phosphorylation by PCK1 reduce oxysterol-binding, disrupting the interaction between INSIG1 and SCAP, thereby promoting Golgi transport of the SCAP-SREBP complex, followed by processing and nuclear translocation of SREBF1/SREBP1 and SREBF2/SREBP2 (PubMed:32322062). Also regulates cholesterol synthesis by regulating degradation of HMGCR: initiates the sterol-mediated ubiquitin-mediated endoplasmic reticulum-associated degradation (ERAD) of HMGCR via recruitment of the reductase to the ubiquitin ligases AMFR/gp78 and/or RNF139 (PubMed:12535518, PubMed:16168377, PubMed:22143767). Also regulates degradation of SOAT2/ACAT2 when the lipid levels are low: initiates the ubiquitin-mediated degradation of SOAT2/ACAT2 via recruitment of the ubiquitin ligases AMFR/gp78 (PubMed:28604676).

Note: This product is for in vitro research use only