

Insig1 Blocking Peptide
Catalog # PBV10397b**Specification**

Insig1 Blocking Peptide - Product Information

Primary Accession	Q08755
Other Accession	NP_071787
Gene ID	64194
Calculated MW	28232

Insig1 Blocking Peptide - Additional Information**Gene ID** 64194**Application & Usage**

The peptide is used for blocking the antibody activity of InSig-1. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

Insulin-induced gene 1 protein, INSIG-1, Immediate-early protein CL-6, Insulin-induced growth response protein CL-6, Insig1, CI-6

Target/Specificity

Insig1

Formulation

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Insig1 Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

Insig1 Blocking Peptide - Protein Information**Name** Insig1 {ECO:0000312|RGD:708457}**Function**

Oxysterol-binding protein that mediates feedback control of cholesterol synthesis by controlling both endoplasmic reticulum to Golgi transport of SCAP and degradation of HMGCR. 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. Binds oxysterol, including 25- hydroxycholesterol, regulating interaction with SCAP and retention of the SCAP-SREBP complex in the endoplasmic reticulum. 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. 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. 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. 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.

Cellular Location

Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:O15503}; Multi-pass membrane protein {ECO:0000250|UniProtKB:O15503}

Tissue Location

Highly expressed in liver and kidney.

Insig1 Blocking Peptide - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Insig1 Blocking Peptide - Images