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INSIG2 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI11690

Product Information

Application	WB
Primary Accession	Q9Y5U4
Other Accession	NM_016133, NP_057217
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Goat, Dog, Horse, Bovine, Sheep
Predicted	Mouse, Rabbit, Pig, Goat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	24778

Additional Information

Gene ID	51141
Alias Symbol	MGC26273
Other Names	Insulin-induced gene 2 protein, INSIG-2, INSIG2
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-INSIG2 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	INSIG2 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

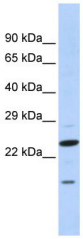
Name	INSIG2 {ECO:0000303|PubMed:12242332, ECO:0000312|HGNC:HGNC:20452}
Function	Oxysterol-binding protein that mediates feedback control of cholesterol synthesis by controlling both endoplasmic reticulum to Golgi transport of SCAP and degradation of HMGCR (PubMed:12242332, PubMed:16606821, PubMed:32322062). 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:32322062). Binds oxysterol, including 22- hydroxycholesterol, 24-hydroxycholesterol, 25-hydroxycholesterol and 27-hydroxycholesterol, regulating interaction with SCAP and retention of the SCAP-SREBP complex in

	the endoplasmic reticulum (PubMed:17428920, PubMed:26160948, 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:32322062). Sterol deprivation or phosphorylation by PCK1 reduce oxysterol-binding, disrupting the interaction between INSIG2 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 ligase RNF139 (PubMed:16606821, PubMed:22143767).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein

References

Li,C.G., (2008) Int. J. Cancer 123 (2), 273-282 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.Publications:Yu, Z. et al. Rapamycin and Dietary Restriction Induce Metabolically Distinctive Changes in Mouse Liver. J. Gerontol. A. Biol. Sci. Med. Sci. glu053- (2014). doi:10.1093/gerona/glu053 WB, Bovine, H, Goat, Rabbit, Sheep, Human, Pig, Mouse, Dog, Rat24755936

Images



WB Suggested Anti-INSIG2 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:62500
Positive Control: Human brain

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.