Revision 1

Synip (C51G6) Rabbit mAb

Store at -20C

#2400

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	62	Rabbit IgG	#Q6ZWJ1	252983

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Synip (C51G6) Rabbit mAb detects endogenous levels of total Synip protein.

Source / Purification

Synip (C51G6) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide corresponding to the sequence of human Synip.

Background

Insulin binds to and activates its receptor and initiates a signaling cascade that eventually induces the translocation of the Glut4 glucose transporter from its intracellular locations to the plasma membrane. Initiating this pathway facilitates glucose uptake in fat and skeletal muscle cells (1). Synip and Syntaxin 4 are two proteins thought to be involved in the recruitment of Glut4-containing vesicles to plasma membrane (2,3). Synip associates with Syntaxin 4 when insulin is absent. Insulin signaling triggers the dissociation of the two proteins and allows Syntaxin 4 to complex with VAMP2, which is essential for Glut4 translocation to plasma membrane (2-4). Overexpression of a dominant-negative form of Synip prevents Glut4 from translocating to plasma membrane in response to insulin stimulation (3). Synip together with Syntaxin 4, therefore, regulates Glut 4 transport to plasma membrane.

Background References

1. Watson, R.T. and Pessin, J.E. (2006) *Trends Biochem. Sci.* 31, 215-222.
2. Min, J. et al. (1999) *Mol. Cell* 3, 751-760.
3. Yamada, E. et al. (2005) *J. Cell Biol.* 168, 921-928.
4. Foster, L.J. and Klip, A. (2000) *Am. J. Physiol. Cell Physiol.* 279, C877-C890.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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