

PACSIN 1

Cat.No. 196-0P; control protein, 100 µg protein (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg protein, lyophilized. For reconstitution add 100 µl H ₂ O to get a 1mg/ml solution in TBS. Then aliquot and store at -20°C until use.
Immunogen	Recombinant protein corresponding to AA 293 to 384 from mouse PACSIN1 (UniProt Id: Q61644)
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	196 002, 196 003
Remarks	This control protein consists of the recombinant protein (aa 293 - 384 of mouse PACSIN 1) that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of protein needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

This protein has been described as **PACSIN 1** (for PKC and CK2 substrate in neurons) and **syndapin 1** (**synaptic, dynamin-associated protein I**). It is a multidomain phospho-protein that interacts via its SH3 domain with dynamin 1, synaptojanin, synapsin and N-WASP. Since N-WASP is an activator of the Arp2/3 complex, syndapin may link membrane trafficking and the actin cytoskeleton.

Up to now, 3 isoforms have been described. Syndapin 1 shows a neuronal, syndapin 3 a muscular and syndapin 2 an ubiquitous expression profile.

Selected General References

Syndapin I is the phosphorylation-regulated dynamin I partner in synaptic vesicle endocytosis. Anggono V, Smillie KJ, Graham ME, Valova VA, Cousin MA, Robinson PJ Nature neuroscience (2006) 9(6): 752-60.

Syndapin oligomers interconnect the machineries for endocytic vesicle formation and actin polymerization. Kessels MM, Qualmann B The Journal of biological chemistry (2006) 281(19): 13285-99.

The syndapin protein family: linking membrane trafficking with the cytoskeleton. Kessels MM, Qualmann B Journal of cell science (2004) 117(Pt 15): 3077-86.

All three PACSIN isoforms bind to endocytic proteins and inhibit endocytosis. Modregger J, Ritter B, Witter B, Paulsson M, Plomann M Journal of cell science (2000) 113 Pt 24: 4511-21.

Syndapin isoforms participate in receptor-mediated endocytosis and actin organization. Qualmann B, Kelly RB The Journal of cell biology (2000) 148(5): 1047-62.

Syndapin I, a synaptic dynamin-binding protein that associates with the neural Wiskott-Aldrich syndrome protein. Qualmann B, Roos J, DiGregorio PJ, Kelly RB Molecular biology of the cell (1999) 10(2): 501-13.

PACSIN, a brain protein that is upregulated upon differentiation into neuronal cells. Plomann M, Lange R, Vopper G, Cremer H, Heinlein UA, Scheff S, Baldwin SA, Leitges M, Cramer M, Paulsson M, Barthels D, et al. European journal of biochemistry (1998) 256(1): 201-11.