Synaptic Systems

Rudolf-Wissell-Str. 28
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

EEA 1

Cat.No. 237-0P; control peptide, 100 µg peptide (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg peptide, lyophilized. For reconstitution add 100 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Control peptides should also be stored at -20°C when still lyophilized!
Immunogen	Synthetic peptide corresponding to AA 2 to 13 from rat EEA1 (UniProt Id: A0A0G2K051)
Recommended dilution	Optimal concentrations should be determined by the end-user.
Remarks	This control peptide consists of the synthetic peptide (aa 2 - 13 in rodent EEA 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 peptide 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

Extracellular compounds are internalized by endocytosis into so called endocytic vesicles. They fuse with early endosomes, from where the endocytosed material can be shuttled to a number of alternative destinations.
Early **e**ndosomal **a**ntigen **1** (**EEA 1**) is a peripheral membrane protein that locates to early endosomes via binding to the membrane lipid phosphatidylinositol 3-phosphate (PtdIns3P) and the active form of Rab5.
Autoantibodies against EEA 1 have been shown to be associated with subacute cutaneous systemic lupus erythematosus.

Selected General References

Cell-cycle-dependent binding kinetics for the early endosomal tethering factor EEA1.
Bergeland T, Haugen L, Landsverk OJ, Stenmark H, Bakke O
EMBO reports (2008) 9(2): 171-8.

EEA1, a tethering protein of the early sorting endosome, shows a polarized distribution in hippocampal neurons, epithelial cells, and fibroblasts.
Wilson JM, de Hoop M, Zorzi N, Toh BH, Dotti CG, Parton RG
Molecular biology of the cell (2000) 11(8): 2657-71.

The Rab5 effector EEA1 interacts directly with syntaxin-6.
Simonsen A, Gaullier JM, D'Arrigo A, Stenmark H
The Journal of biological chemistry (1999) 274(41): 28857-60.

The endosome fusion regulator early-endosomal autoantigen 1 (EEA1) is a dimer.
Callaghan J, Simonsen A, Gaullier JM, Toh BH, Stenmark H
The Biochemical journal (1999) 338 (Pt 2): 539-43.

Endosomal localization of the autoantigen EEA1 is mediated by a zinc-binding FYVE finger.
Stenmark H, Aasland R, Toh BH, D'Arrigo A
The Journal of biological chemistry (1996) 271(39): 24048-54.

EEA1, an early endosome-associated protein. EEA1 is a conserved alpha-helical peripheral membrane protein flanked by cysteine "fingers" and contains a calmodulin-binding IQ motif.
Mu FT, Callaghan JM, Steele-Mortimer O, Stenmark H, Parton RG, Campbell PL, McCluskey J, Yeo JP, Tock EP, Toh BH
The Journal of biological chemistry (1995) 270(22): 13503-11.