SYSY Antibodies

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Antibody Sampler Kit for Cellular Compartments (cat. no. 801-ASK)

Syntaxin5

Cat.No. 110 053; Polyclonal rabbit antibody, 10 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	10 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For **reconstitution** add 10 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: yes **ICC**: 1 : 100 up to 1 : 500 **IHC**: 1 : 200 **IHC-P**: not tested yet
Immunogen	Recombinant protein corresponding to AA 1 to 279 from mouse Syntaxin5 (UniProt Id: Q8K1E0)
Reactivity	Reacts with: human (Q13190), rat (Q08851), mouse (Q8K1E0), hamster, monkey. Other species not tested yet.
Specificity	K.D. validated PubMed: 31356625
Matching control	110-5P
Remarks	This antibody detects the 35 kDa and 42 kDa variants of syntaxin 5.

Background

Syntaxin 5, a member of the SNARE family of proteins, is functionally related to the yeast protein Sed5p. Two syntaxin 5 isoforms (35 and 42 kDa) have been described which are generated from the same mRNA by alternative translation initiation. The longer 42 kDa variant contains an N-terminal extension carrying a putative type II ER-retrieval signal.
Syntaxin 5 forms a SNARE complex with membrin, GOSR 1, rbet1 and rsec22. A more detailed analysis revealed two subcomplexes within this complex. One contains syntaxin 5 (mainly the shorter 35 kDa variant) and GOSR 1 whereas the other is composed of syntaxin 5 (35 and 42 kDa variant), membrin, rsec22 and rbet1.
Recently syntaxin 5 has been shown to be involved in the processing and accumulation of β-APP in neuronal cells.

U1-70k

Cat.No. 203 011; Monoclonal mouse antibody, 20 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	20 µg purified IgG, lyophilized. Albumin and azide were added for stabilization. For **reconstitution** add 20 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 500 up to 1 : 1000 (AP staining) **IP**: yes **ICC**: 1 : 500 **IHC**: yes **IHC-P**: 1 : 500 **FACS**: yes
Clone	H111
Subtype	IgG2a (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 437 from human U1-70k (UniProt Id: P08621)
Epitop	AA 1 to 275 from human U1-70k (UniProt Id: P08621)
Reactivity	Reacts with: human (P08621), rat, mouse (Q62376), mammals. Other species not tested yet.

Background

In eukaryotic cells introns are removed from pre-mRNAs by the splicesome which consists of the U1, U2, U4, U5 and U6 small nuclear ribonucleoprotein particles (snRNPs) and other proteins.
Binding of the 5´-splicing site to the U1 snRNP is one of the first steps in the spliceosome assembly. This interaction involves base-pairing between the U1 snRNA and conserved sequences spanning the 5´-splice site.
U1-70k is a member of the U1 snRNP. It has an RNA binding domain (RBD) and directly interacts with stem-loop I of U1 snRNA.

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EEA1

Cat.No. 237 002; Polyclonal rabbit antibody, 40 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	40 µl antiserum, lyophilized. For **reconstitution** add 40 µl H_2O, then aliquot and store at -20°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 up to 1 : 5000 (AP staining) **IP**: not tested yet **ICC**: 1 : 1000 up to 1 : 2000 **IHC**: not recommended **IHC-P**: 1 : 200
Immunogen	Synthetic peptide corresponding to AA 2 to 13 from human EEA1 (UniProt Id: Q15075)
Reactivity	Reacts with: human (Q15075), rat (A0A0G2K051), mouse (Q8BL66). No signal: zebrafish. Other species not tested yet.

Background

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.

β-Actin

Cat.No. 251 011; Monoclonal mouse antibody, 20 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	20 µg purified IgG, lyophilized. Albumin and azide were added for stabilization. For **reconstitution** add 20 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 up to 1 : 5000 (AP staining) **IP**: yes **ICC**: 1 : 500 (see remarks) **IHC**: not tested yet **IHC-P**: not tested yet
Clone	130B4
Subtype	IgG1 (κ light chain)
Immunogen	Synthetic peptide corresponding to AA 2 to 16 from mouse β-Actin (UniProt Id: P60710)
Reactivity	Reacts with: rat (P60711), mouse (P60710), zebrafish, human (P60709). Other species not tested yet.
Specificity	May cross-react to α- and γ-actin due to sequence homology.
Remarks	**ICC**: methanol or PFA fixation

Background

The two major cytoskeletal proteins involved in cell motility are myosin and **actin**. Monomeric actin is a globular protein that is expressed in all eukaryotic cells. Actin is the major subunit of microfilaments, a major component of the cytoskeleton, and of thin filaments, part of the contractile apparatus in muscle cells.
Actin is involved in many cellular processes including cell motility, maintenance of cell shape, and organelle trafficking.
Three main groups of actin have been identified. α-actins are found in muscle tissues whereas β- and γ-actins co-exist in most cell types as components of the cytoskeleton.

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Antibody Sampler Kit for Cellular Compartments (cat. no. 801-ASK)

Giantin

Cat.No. 263 004; Polyclonal Guinea pig antibody, 30 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	30 µl antiserum, lyophilized. For **reconstitution** add 30 µl H_2O, then aliquot and store at -20°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 (AP staining) (see remarks) **IP**: not tested yet **ICC**: 1 : 500 **IHC**: 1 : 200 up to 1 : 500 **IHC-P**: 1 : 200 up to 1 : 500
Immunogen	Recombinant protein corresponding to AA 1 to 427 from rat Giantin (UniProt Id: G3V6A8)
Reactivity	Reacts with: rat, mouse. Other species not tested yet.
Remarks	**WB**: Due to its large size, Giantin requires special gel-electrophoresis and Western blot protocols for visualization by immunoblotting. Excellent results can be obtained with the 4-12% TRIS-glycine gradient gels from anamed or NuPAGE 3-8% TRIS-Acetate gradient gels from invitrogen.

Background

In eukaryotic cells the Golgi complex consists of stacked cisternae. **Giantin**, also referred to as **macrogolgin** or **p400**, is a single pass membrane protein involved in tethering these cisternae by cross-bridge formation. Its large cytoplasmic N-terminus is involved in the docking of COPI vesicles via p115 to the Golgi membrane.
Systemic lupus erythematosus and Sjögren's syndrome correlate with autoimmune antibodies against Golgi-compartment proteins with giantin being the most common autoantigen.

AiF

Cat.No. 300 003; Polyclonal rabbit antibody, 10 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	10 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For **reconstitution** add 10 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not recommended **ICC**: 1 : 500 **IHC**: not tested yet **IHC-P**: not tested yet
Immunogen	Synthetic peptide corresponding to AA 514 to 529 from mouse AiF (UniProt Id: Q9Z0X1)
Reactivity	Reacts with: human, rat, mouse (Q9Z0X1). Other species not tested yet.
Specificity	Specific for AiF.
Matching control	300-0P

Background

In healthy cells the **a**poptosis-**i**nducing **f**actor **AiF**, also referred to as **PDCD 8**, localizes to the inner membrane of mitochondria where it functions as an oxidoreductase. After permeabilization of the outer mitochondrial membrane, which is common to apoptotic pathways, AiF is released from mitochondria and translocated to the nucleus. There it contributes to apoptotic chromatin condensation and DNA degradation.

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Calreticulin

Cat.No. 315 003; Polyclonal rabbit antibody, 10 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	10 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For **reconstitution** add 10 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C to -80°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: 1 : 500 up to 1 : 1000 **IHC**: 1 : 200 **IHC-P**: 1 : 200 up to 1 : 2000 **Clarity**: 1 : 200 (see remarks)
Immunogen	Recombinant protein corresponding to AA 341 to 416 from mouse Calreticulin (UniProt Id: P14211)
Reactivity	Reacts with: rat (P18418), mouse (P14211). Other species not tested yet.
Remarks	**Clarity**: This antibody has been successfully used for CLARITY application in human brain (Woelfle et al., 2023; PMID: 37221592).

Background

The abundantly expressed protein **calreticulin** is a calcium-binding lectin that locates to the endoplasmatic reticulum (ER). It is involved in quality control of protein processing in the ER via the calreticulin/calnexin cycle. Calreticulin is also referred to as CRP55, calregulin, HACBP and ERp60.