

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

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| 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 ₂ O 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

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| Reconstitution/Storage | 20 µg purified IgG, lyophilized. Albumin and azide were added for stabilization. For reconstitution add 20 µl H ₂ O 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: 1 : 500 (see remarks) 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. |
| Remarks | IHC: Antigen retrieval with citrate buffer pH 6 is required. |

Background

In eukaryotic cells introns are removed from pre-mRNAs by the spliceosome 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

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| Reconstitution/Storage | 40 µl antiserum, lyophilized. For reconstitution add 40 µl H ₂ O, 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 endosomal antigen 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

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| Reconstitution/Storage | 20 µg purified IgG, lyophilized. Albumin and azide were added for stabilization. For reconstitution add 20 µl H ₂ O 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 : 10000 (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), Drosophila melanogaster. Other species not tested yet. |
| Specificity | May cross-react to α- and γ-actin due to sequence homology. |
| Remarks | ICC: The following fixatives are possible: 4% formaldehyde/PFA, methanol. |

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.

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

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| Reconstitution/Storage | 30 µl antiserum, lyophilized. For reconstitution add 30 µl H ₂ O, 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 the large size of this protein, we recommend NuPAGE 3-8% Tris-Acetate gels for SDS-PAGE. |

Background

In eukaryotic cells the Golgi complex consists of stacked cisternae. **Giantin**, also referred to as **macroglolin** 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

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| 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 ₂ O 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 **apoptosis-inducing factor 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.

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

Calreticulin

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

Data Sheet

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| Reconstitution/ Storage | 10 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For reconstitution add 10 µl H ₂ O 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: external data (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 applied and published for this method by customers (see application-specific references). |

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.