

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Endophilin A1/SH3GL2 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Endophilin A1/SH3GL2 Ala217-Pro293 Accession # Q99962
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Endophilin A1 (also SH3GL2, SH3P4, EEN-B1, CNS-A2, GL2 and SH3D2A) is a 39-42 kDa member of the A subfamily, endophilin (attracted to endocytic protein) family of molecules. It is a neuronally-expressed cytosolic protein that is concentrated in presynaptic areas. Endophilin A1 is a key player in clathrin-associated endocytosis, participating in invagination plus vesicle fission and recycling. It is able to impact membrane curvature through electrostatic differences via its N-terminus, and interact with multiple synaptic region proteins such as dynamin and synaptojanin through an SH3 homology domain at its C-terminus. Although Endophilin A1 is a monomer in the cytosol, it will homodimerize and heterodimerize with endophilin-2 when active at the synapse. Endophilin A1 is also associated with endocytic trafficking of growth factor receptors. In concert with CIN85, Cbl and ataxin-2, Endophilin A1 extend the half-life of EGFR at the plasma membrane. Human Endophilin A1 is 352 amino acids (aa) in length. It contains an aforementioned N-terminal BAR domain (aa 18-249) plus an SH3 domain that binds Pro-rich aa sequences (aa 290-349). There is one potential alternative start site at Met36. Endophilin A1 is one of three groupA endophilin isoforms, all of which are the product of separate genes. Although the -A2 and -A3 isoforms share approximately 70% aa overall sequence identity with -A1, over aa 217-293, -A2 and -A3 share less than 50% aa sequence identity with Endophilin A1. Over this same aa sequence, human and mouse Endophilin A1 share more than 97% aa sequence identity.

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