

LRSAM1 Rabbit pAb

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Product Information

ApplicationWB, EPrimary AccessionQ6UWE0ReactivityMouse

Predicted Human, Rat, Horse, Sheep

Host Rabbit
Clonality Polyclonal
Calculated MW 83594
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human LRSAM1

Epitope Specificity 201-300/723

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Cytoplasm. Note=Displays a punctuate distribution and localizes to a

submembranal ring.

SIMILARITY Contains 6 LRR (leucine-rich) repeats. Contains 1 RING-type zinc finger.

Contains 1 SAM (sterile alpha motif) domain.

SUBUNIT Interacts with TSG101.

DISEASE Defects in LRSAM1 are a cause of Charcot-Marie-Tooth disease type 2P

(CMT2P) [MIM:614436]. CMT2P is an axonal form of Charcot-Marie-Tooth disease, a disorder of the peripheral nervous system, characterized by progressive weakness and atrophy, initially of the peroneal muscles and later of the distal muscles of the arms. Charcot-Marie-Tooth disease is classified in

two main groups on the basis of electrophysiologic properties and

histopathology: primary peripheral demyelinating neuropathies (designated CMT1 when they are dominantly inherited) and primary peripheral axonal neuropathies (CMT2). Neuropathies of the CMT2 group are characterized by signs of axonal degeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy. Nerve conduction velocities are normal or

slightly reduced.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions LRSAM1 is an E3 ubiquitin-protein ligase that mediates monoubiquitination of

TSG101 at multiple sites, leading to inactivation of the ability of TSG101 to sort endocytic (EGF receptors) and exocytic (HIV-1 viral proteins) cargos. It selectively regulates cell adhesion molecules and plays a role in receptor endocytosis and viral budding. LRSAM1 contains a RING-type zinc finger, 5 leucine-rich repeats and 1 SAM (sterile alpha motif) domain. The coiled coil domains interact with the SB domain of TSG101. The PTAP motifs mediate the binding to UEV domains. There are 3 isoforms produced by alternative

splicing.

Additional Information

Gene ID 90678

Other Names E3 ubiquitin-protein ligase LRSAM1, 2.3.2.27, Leucine-rich repeat and sterile

alpha motif-containing protein 1, RING-type E3 ubiquitin transferase LRSAM1, Tsg101-associated ligase, hTAL, LRSAM1 {ECO:0000303|PubMed:20865121}

Target/Specificity Highly expressed in adult spinal cord motoneurons as well as in fetal spinal

cord and muscle tissue.

Dilution WB=1:500-2000,ELISA=1:5000-10000

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name LRSAM1 {ECO:0000303 | PubMed:20865121}

Function E3 ubiquitin-protein ligase that mediates monoubiquitination of TSG101 at

multiple sites, leading to inactivate the ability of TSG101 to sort endocytic (EGF receptors) and exocytic (HIV-1 viral proteins) cargos (PubMed: 15256501). Bacterial recognition protein that defends the cytoplasm from invasive pathogens (PubMed: 23245322). Localizes to several intracellular bacterial pathogens and generates the bacteria-associated ubiquitin signal leading to autophagy-mediated intracellular bacteria degradation (xenophagy)

(PubMed:<u>23245322</u>, PubMed:<u>25484098</u>).

Cellular Location Cytoplasm. Note=Displays a punctuate distribution and localizes to a

submembranal ring (PubMed:15256501). Localizes to intracellular bacterial

pathogens (PubMed:23245322)

Tissue Location Highly expressed in adult spinal cord motoneurons as well as in fetal spinal

cord and muscle tissue

Background

LRSAM1 is an E3 ubiquitin-protein ligase that mediates monoubiquitination of TSG101 at multiple sites, leading to inactivation of the ability of TSG101 to sort endocytic (EGF receptors) and exocytic (HIV-1 viral proteins) cargos. It selectively regulates cell adhesion molecules and plays a role in receptor endocytosis and viral budding. LRSAM1 contains a RING-type zinc finger, 5 leucine-rich repeats and 1 SAM (sterile alpha motif) domain. The coiled coil domains interact with the SB domain of TSG101. The PTAP motifs mediate the binding to UEV domains. There are 3 isoforms produced by alternative splicing.

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