SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Rabbit Anti-Alpha Dystroglycan/AF350 Conjugated antibody

SL5152R-AF350

Product Name	Anti-Alpha Dystroglycan/AF350
Chinese Name	AF350 标记的肌萎缩相关蛋白 DAG1 抗体
Alias	AGRNR; Alpha-DG; Beta-DG; Beta-dystroglycan; beta Dystroglycan; DAG; Dag1; DAG1_HU Dystroglycan 1 (dystrophin-associated glycoprotein 1); Dystroglycan; Dystrophin-associated gly 156DAG; A3a; Dystrophin-associated glycoprotein 1.
Research Area	immunology Neurobiology Signal transduction transcriptional regulatory factor Cytoskeleton Ex matrix
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Horse,Rabbit)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	98kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human DAG1 (501-550aa)
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stab temperature for at least one month and for greater than a year when kept at -20°C. When reconstitu 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** Dystroglycan is a laminin binding component of the dystrophin-glycoprotein complex which pro between the subsarcolemmal cytoskeleton and the extracellular matrix. Dystroglycan 1 is a candi site of the mutation in autosomal recessive muscular dystrophies. The dramatic reduction of dyst

Duchenne muscular dystrophy leads to a loss of linkage between the sarcolemma and extracellul rendering muscle fibers more susceptible to necrosis. Dystroglycan also functions as dual recept laminin-2 in the Schwann cell membrane. The muscle and nonmuscle isoforms of dystroglycan carbohydrate moieties but not protein sequence. Alternative splicing results in multiple transcrip encoding the same protein.[provided by RefSeq, Apr 2010]

Function:
The dystroglycan complex is involved in a number of processes including laminin and basement assembly, sarcolemmal stability, cell survival, peripheral nerve myelination, nodal structure, cell epithelial polarization.
Alpha-dystroglycan is an extracellular peripheral glycoprotein that acts as a receptor for both ext proteins containing laminin-G domains, and for certain adenoviruses. Receptor for laminin-2 (LA in peripheral nerve Schwann cells. Also acts as a receptor for M.leprae in peripheral nerve Schwa in the presence of the G-domain of LAMA2, and for lymphocytic choriomeningitis virus, Old W virus, and clade C New World arenaviruses.
Beta-dystroglycan is a transmembrane protein that plays important roles in connecting the extrac the cytoskeleton. Acts as a cell adhesion receptor in both muscle and non-muscle tissues. Recepto and UTRN and, through these interactions, scaffolds axin to the cytoskeleton. Also functions in adhesion-mediated signaling and implicated in cell polarity.

Subunit:
Monomer. Heterodimer of alpha- and beta-dystroglycan subunits which are the central compone dystrophin-glycoprotein complex.

Subcellular Location:
Secreted > extracellular space and Cell membrane. Cytoplasm > cytoskeleton. Nucleus > nucleo monomeric form translocates to the nucleus via the action of importins and depends on RAN. Nu inhibited by Tyr-892 phosphorylation. In skeletal muscle, this phosphorylated form locates to a v membrane compartment. In peripheral nerves, localizes to the Schwann cell membrane. Colocali proteins in Schwann-cell microvilli.

Tissue Specificity:
Expressed in a variety of fetal and adult tissues. In epidermal tissue, located to the basement mem expressed in keratinocytes and fibroblasts.

Post-translational modifications:
O- and N-glycosylated. Alpha-dystroglycan is heavily O-glycosylated comprising of up to two th and the carbohydrate composition differs depending on tissue type. Mucin-type O-glycosylation ligand binding activity. O-mannosylation of alpha-DAG1 is found in high abundance in both bra where the most abundant glycan is Sia-alpha-2-3-Gal-beta-1-4-Glc-NAc-beta-1-2-Man. In musc on Thr-379 by a phosphorylated O-mannosyl glycan with the structure
2-(N-acetylamido)-2-deoxygalactosyl-beta-1,3-2-(N-acetylamido)-2-deoxyglucosyl-beta-1,4-6-p is mediated by like-acetylglucosaminyltransferase (LARGE) protein and is required for laminin O-mannosylation is also required for binding lymphocytic choriomeningitis virus, Old World La

and clade C New World arenaviruses. The O-glycosyl hexose on Thr-367, Thr-369, Thr-372, Th
Thr-388 is probably mannose. O-glycosylated in the N-terminal region with a core 1 or possibly
The beta subunit is N-glycosylated. Autolytic cleavage produces the alpha and beta subunits. In cu
well as in certain pathological conditions, shedding of beta-dystroglcan can occur releasing a pep
kDa.
SRC-mediated phosphorylation of the PPXY motif of the beta subunit recruits SH2 domain-cont
but inhibits binding to WWW domain-containing proteins, DMD and UTRN. This phosphorylat
nuclear entry.

Similarity:
Contains 1 peptidase S72 domain.

Database links:

Entrez Gene: 1605 Human

Entrez Gene: 13138 Mouse

Entrez Gene: 100009278 Rabbit

Entrez Gene: 114489 Rat

Omim: 128239 Human

SwissProt: Q14118 Human

SwissProt: Q62165 Mouse

Unigene: 76111 Human

Unigene: 7524 Mouse

Unigene: 36260 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or d
applications.