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ASPSCR1 Rabbit pAb

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Catalog # AP54836

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q9BZE9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60183
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TUG/ASPC
Epitope Specificity	351-420/553
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	Endomembrane system; Peripheral membrane protein.
SIMILARITY	Contains 1 UBX domain.
SUBUNIT	Interacts with GLUT4.
DISEASE	Note=A chromosomal aberration involving ASPSCR1 is found in patients with alveolar soft part sarcoma. Translocation t(X;17)(p11;q25) with TFE3 forms a ASPSCR1-TFE3 fusion protein. Note=A chromosomal aberration involving ASPSCR1 has been found in two patients with of papillary renal cell carcinoma. Translocation t(X;17)(p11.2;q25).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Glut4 is a twelve pass transmembrane protein (12TM) whose carboxy-terminus may dictate its cellular localization. Aberrant Glut4 expression has been suggested to contribute to such maladies as obesity and diabetes. Glut4 null mice have shown that while functional Glut4 protein is not required for maintaining normal glucose levels, it is necessary for sustained growth, normal cellular glucose, fat metabolism and prolonged longevity. TUG (ASPL in humans) regulates the trafficking of glucose via Glut4. Full-length TUG forms a complex with Glut4 and in 3T3-L1 adipocytes and this complex is present in unstimulated cells and is disassembled by insulin. TUG acts by trapping endocytosed Glut4 and tethering it intracellularly. Insulin mobilizes this pool of retained Glut4 by releasing the tether.

Additional Information

Gene ID	79058
Other Names	Tether containing UBX domain for GLUT4, Alveolar soft part sarcoma chromosomal region candidate gene 1 protein, Alveolar soft part sarcoma locus, Renal papillary cell carcinoma protein 17, UBX domain-containing

	protein 9, ASPSCR1, ASPL, RCC17, TUG, UBXD9, UBXN9
Target/Specificity	Ubiquitous. Highly expressed in testis, heart, skeletal muscle and pancreas.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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.

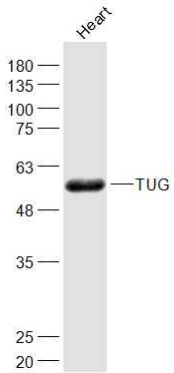
Protein Information

Name	ASPSCR1
Synonyms	ASPL, RCC17, TUG, UBXD9, UBXN9
Function	Tethering protein that sequesters GLUT4-containing vesicles in the cytoplasm in the absence of insulin. Modulates the amount of GLUT4 that is available at the cell surface (By similarity). Enhances VCP methylation catalyzed by VCPKMT.
Cellular Location	Endomembrane system; Peripheral membrane protein. Endoplasmic reticulum-Golgi intermediate compartment membrane; Peripheral membrane protein. Cytoplasm Nucleus
Tissue Location	Ubiquitous. Highly expressed in testis, heart, skeletal muscle and pancreas.

Background

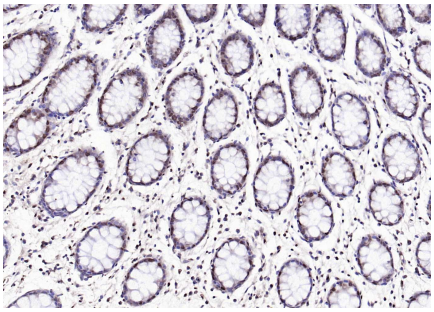
Glut4 is a twelve pass transmembrane protein (12TM) whose carboxy-terminus may dictate its cellular localization. Aberrant Glut4 expression has been suggested to contribute to such maladies as obesity and diabetes. Glut4 null mice have shown that while functional Glut4 protein is not required for maintaining normal glucose levels, it is necessary for sustained growth, normal cellular glucose, fat metabolism and prolonged longevity. TUG (ASPL in humans) regulates the trafficking of glucose via Glut4. Full-length TUG forms a complex with Glut4 and in 3T3-L1 adipocytes and this complex is present in unstimulated cells and is disassembled by insulin. TUG acts by trapping endocytosed Glut4 and tethering it intracellularly. Insulin mobilizes this pool of retained Glut4 by releasing the tether.

Images



Sample:
Heart (Mouse) Lysate at 40 ug
Primary: Anti-TUG (AP54836) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 60 kD
Observed band size: 58 kD

Paraformaldehyde-fixed, paraffin embedded (human colon); Antigen retrieval by boiling in sodium citrate



buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ASPSCR1) Polyclonal Antibody, Unconjugated (AP54836) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.