Datasheet for ABIN7601352

anti-SLC38A9 antibody (AA 33-450)

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Overview

Quantity:	100 µg
Target:	SLC38A9
Binding Specificity:	AA 33-450
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This SLC38A9 antibody is un-conjugated
Application:	ELISA, Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-SLC38A9 Antibody Picoband®
Immunogen:	E.coli-derived human SLC38A9 recombinant protein (Position: D33-Q450).
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Anti-SLC38A9 Antibody Picoband® (ABIN7601352). Tested in ELISA, IF, ICC, WB, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Purification:	Immunogen affinity purified.

Target Details

Target:	SLC38A9
Alternative Name:	SLC38A9 (SLC38A9 Products)
Background:	Synonyms: 70 kDa ribosomal protein S6 kinase 1 antibody, KS6B1_HUMAN antibody, p70 alpha antibody, P70 beta 1 antibody, p70 ribosomal S6 kinase alpha antibody, p70 ribosomal S6 kinase beta 1 antibody, p70 S6 kinase alpha antibody, P70 S6 Kinase antibody, p70 S6 kinase alpha 1 antibody, p70 S6 kinase alpha 2 antibody, p70 S6K antibody, p70 S6K-alpha antibody, p70 S6KA antibody, p70(S6K) alpha antibody, p70(S6K)-alpha antibody, p70-alpha antibody, p70-S6K 1 antibody, p70-S6K antibody, P70S6K antibody, P70S6K1 antibody, p70S6Kb antibody, PS6K antibody, Ribosomal protein S6 kinase 70 kDa polypeptide 1 antibody, Ribosomal protein S6 kinase beta 1 antibody, Ribosomal protein S6 kinase beta-1 antibody, Ribosomal protein S6 kinase I antibody, RPS6KB1 antibody, S6K antibody, S6K-beta-1 antibody, S6K1 antibody, Serine/threonine kinase 14 alpha antibody, Serine/threonine-protein kinase 14A antibody, STK14A antibody Tissue Specificity: Expressed in all tissues. Background: Solute carrier family 38 member 9 is a protein that in humans is encoded by the SLC38A9 gene. Sodium-coupled neutral amino acid transporter 9 (SLC38A9) is a lysosomal amino acid transporter, involved in the regulation of mechanistic target of rapamycin complex 1 (mTORC1) activity in response to amino acid levels within the lysosomal lumen. A sodium-couple amino acid transporter at the lysosome, SLC38A9, senses arginine from within the lysosome to convey arginine sufficiency to mTORC1. SLC38A9 forms a complex with other lysosomal resident proteins including the v-ATPase and a pentameric complex called Ragulator. v-ATPase function is necessary for mTORC1 activation, but the molecular mechanism of this regulation is currently unclear2. Ragulator binds strongly to the Rag GTPases and was shown to function as a guanine exchange factor (GEF) for RagA/B. Potentially SLC38A9 and the v-ATPase are able to regulate mTORC1 activity by modulating Ragulator's GEF activity. RagA/B is not the only Rag GTPase that is regulated, but a Folliculin-FNIP2 complex is a GAP for RagC/D. In short, SLC38A9 is a functional component of the lysosomal amino acid sensing machinery involved in the control of mTORC1 activity, that underlies the regulation of the metabolic status and cellular responses to growth factors, energy, glucose and amino acid levels.
Molecular Weight:	64 kDa
Gene ID:	153129

Application Details

Application Notes:	Western blot, 0.25-0.5 µg/mL, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human Flow Cytometry (Fixed), 1-3 µg/1x10^6 cells, Human ELISA, 0.1-0.5 µg/mL, - 1. Castellano, B. M., Thelen, A. M., Moldavski, O., Feltes, M., van der Welle, R. E. N., Mydock-McGrane, L., Jiang, X., van Eijkeren, R. J., Davis, O. B., Louie, S. M., Perera, R. M., Covey, D. F., Nomura, D. K., Ory, D. S., Zoncu, R. Lysosomal cholesterol activates mTORC1 via an SLC38A9-Niemann-Pick C1 signaling complex. Science 355: 1306-1311, 2017. 2. Rebsamen, M., Pochini, L., Stasyk, T., de Araujo, M. E. G., Galluccio, M., Kandasamy, R. K., Snijder, B., Fauster, A., Rudashevskaya, E. L., Bruckner, M., Scorzoni, S., Filipek, P. A., Huber, K. V. M., Bigenzahn, J. W., Heinz, L. X., Kraft, C., Bennett, K. L., Indiveri, C., Huber, L. A., Superti-Furga, G. SLC38A9 is a component of the lysosomal amino acid sensing machinery that controls mTORC1. Nature 519: 477-481, 2015. 3. Schioth, H. B., Roshanbin, S., Hagglund, M. G. A., Fredriksson, R. Evolutionary origin of amino acid transporter families SLC32, SL36 and SLC38 and physiological, pathological and therapeutic aspects. Molec. Aspects Med. 34: 571-585, 2013.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Adding 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL
Buffer:	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.