

Rabbit P5CS/ALDH18A1 Polyclonal Antibody | anti-ALDH18A1 antibody

Anti-P5CS/ALDH18A1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125484	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

P5CS/ALDH18A1; Polyclonal Antibody; Anti-P5CS/ALDH18A1 Antibody; Delta-1-pyrroline-5-carboxylate synthase; P5CS; Aldehyde dehydrogenase family 18 member A1; GK; Gamma-glutamyl kinase; GPR; Glutamate-5-semialdehyde dehydrogenase; Glutamyl-gamma-semialdehyde dehydrogenase; ALDH18A1; GSAS; PYCS; anti-ALDH18A1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	No cross reactivity with other proteins.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Sequence Length	795
Applicable Applications for anti-ALDH18A1 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human P5CS/ALDH18A1 recombinant protein (Position: M1-A224).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen store at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES


WB (Western Blot)

Figure 1. Western blot analysis of ALDH18A1 using anti-ALDH18A1 antibody.


FCM/FACS (Flow Cytometry)

ADDITIONAL INFORMATION

Related Product Information for anti-ALDH18A1 antibody	Description: Rabbit IgG polyclonal antibody for P5CS/ALDH18A1 detection. Tested with WB, FCM, Direct ELISA in Human; Mouse; Rat. Background: Delta-1-pyrroline-5-carboxylate synthetase (P5CS) is an enzyme that in humans is encoded by the ALDH18A1 gene. This gene is mapped to 10q24.1. This gene is a member of the aldehyde dehydrogenase family and encodes a bifunctional ATP- and NADPH-dependent mitochondrial enzyme with both gamma-glutamyl kinase and gamma-glutamyl phosphate reductase activities. The encoded protein catalyzes the reduction of glutamate to delta1-pyrroline-5-carboxylate, a critical step in the de novo biosynthesis of proline, ornithine and arginine. Mutations in this gene lead to hyperammonemia, hypoorithinemia, hypocitrullinemia, hypoargininemia and hypoprolinemia and may be associated with neurodegeneration, cataracts and connective tissue diseases. Alternatively spliced transcript variants, encoding different isoforms, have been described for this gene.
References	1. Bicknell, L. S., Pitt, J., Aftimos, S., Ramadas, R., Maw, M. A., Robertson, S. P. A missense mutation in ALDH18A1, encoding delta-1-pyrroline-5-carboxylate synthase (P5CS), causes an autosomal recessive neurocutaneous syndrome. <i>Europ. J. Hum. Genet.</i> 16: 1176-1186, 2008. 2. Fischer, B., Callewaert, B., Schroter, P., Coucke, P. J., Schlack, C., Ott, C.-E., Morroni, M., Homann, W., Mundlos, S., Morava, E., Ficcadenti, A., Kornak, U. Severe congenital cutis laxa with cardiovascular manifestations due to homozygous deletions in ALDH18A1. <i>Molec. Genet. Metab.</i> 112: 310-316, 2014. 3. Panza, E., Escamilla-Honrubia, J. M., Marco-Marin, C., Gougéard, N., De Michele, G., Brescia Morra, V., Liguori, R., Salvati, L., Donati, M. A., Cusano, R., Pippucci, T., Ravazzolo, R., Nemeth, A. H., Smithson, S., Davies, S., Hurst, J. A., Bordo, D., Rubio, V., Seri, M. ALDH18A1 gene mutations cause dominant spastic paraplegia SPG9: loss of function effect and plausibility of a dominant negative mechanism. (Letter) <i>Brain</i> 139: e3, 2016. Note: Electronic Article.

NCBI AND UNIPROT INFORMATION

NCBI GI #	6226882
NCBI GeneID	5832
UniProt Accession #	P54886
NCBI Official Full Name	Delta-1-pyrroline-5-carboxylate synthase
NCBI Official Synonym Full Names	aldehyde dehydrogenase 18 family member A1
NCBI Official Symbol	ALDH18A1
NCBI Official Synonym Symbols	GSAS; P5CS; PYCS; SPG9; ADCL3; SPG9A; SPG9B; ARCL3A
NCBI Protein Information	delta-1-pyrroline-5-carboxylate synthase
UniProt Protein Name	Delta-1-pyrroline-5-carboxylate synthase
UniProt Gene Name	ALDH18A1
UniProt Synonym Gene Names	GSAS; P5CS; PYCS; P5CS; GK; GPR
UniProt Entry Name	P5CS_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/p5cs-aldh18a1-antibody-direct-elisa-flow-cytometry-western-blot-elisa/125484>