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Anti-P5CS Antibody

Catalog # AP61058

Product Information

Application	WB, IF/IC
Primary Accession	P54886
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	87302

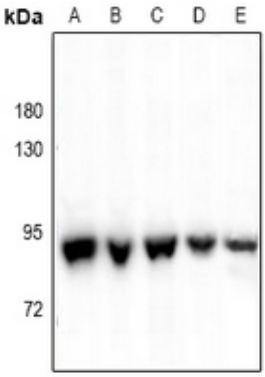
Additional Information

Gene ID	5832
Other Names	GSAS; P5CS; PYCS; Delta-1-pyrroline-5-carboxylate synthase; P5CS; Aldehyde dehydrogenase family 18 member A1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human P5CS. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

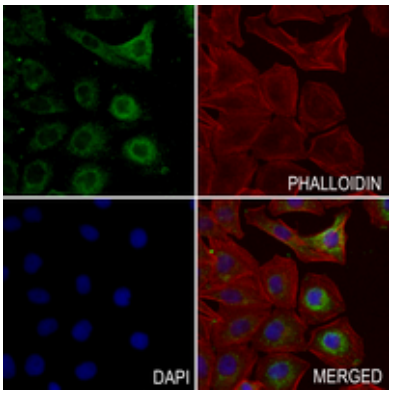
Protein Information

Name	ALDH18A1
Synonyms	GSAS, P5CS, PYCS
Function	Bifunctional enzyme that converts glutamate to glutamate 5- semialdehyde, an intermediate in the biosynthesis of proline, ornithine and arginine.
Cellular Location	Mitochondrion. Mitochondrion matrix. Note=Exhibits puncta-like structures inside mitochondria under nutrient stress (PubMed:32770108). When cellular dependence on oxidative phosphorylation increases, forms filaments, which may increase its activity, and is sequestered in a subset of atypical mitochondria that lack cristae and ATP synthase (PubMed:39506109).

Images



Western blot analysis of P5CS expression in HCT116 (A), Panc1 (B), SGC7901 (C), A375 (D), mouse embryo (E) whole cell lysates. (Predicted band size: 87 kD; Observed band size: 87 kD)



Immunofluorescent analysis of P5CS staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.