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AMD1/SAMDC Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57286

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	P17707
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38340
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SAMDC
Epitope Specificity	51-150/334
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the eukaryotic AdoMetDC family.
Post-translational modifications	Is synthesized initially as an inactive proenzyme. Formation of the active enzyme involves a self-maturation process in which the active site pyruvoyl group is generated from an internal serine residue via an autocatalytic post-translational modification. Two non-identical subunits are generated from the proenzyme in this reaction, and the pyruvate is formed at the N-terminus of the alpha chain, which is derived from the carboxyl end of the proenzyme. The post-translation cleavage follows an unusual pathway, termed non-hydrolytic serinolysis, in which the side chain hydroxyl group of the serine supplies its oxygen atom to form the C-terminus of the beta chain, while the remainder of the serine residue undergoes an oxidative deamination to produce ammonia and the pyruvoyl group blocking the N-terminus of the alpha chain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The product of this gene is an important intermediate enzyme in polyamine biosynthesis. The polyamines spermine, spermidine, and putrescine are low molecular weight aliphatic amines essential for cellular proliferation and tumor promotion. This protein spans 22 kb comprised of 9 exons and 8 introns and encoding two species of mRNA of 2.1 and 3.4-3.6 kb originating from the use of two different polyadenylation signals. The pro protein is an approximate 38.3 kDa which is known to undergo processing at amino acid 68 to yield two fragments of 32 and 6kDa.

Additional Information

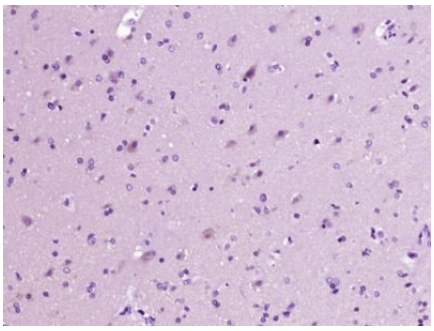
Gene ID	262
Other Names	S-adenosylmethionine decarboxylase proenzyme, AdoMetDC, SAMDC,

	4.1.1.50, S-adenosylmethionine decarboxylase alpha chain, S-adenosylmethionine decarboxylase beta chain, AMD1, AMD
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	AMD1
Synonyms	AMD
Function	Essential for biosynthesis of the polyamines spermidine and spermine. Promotes maintenance and self-renewal of embryonic stem cells, by maintaining spermine levels.

Images



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); 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 (AMD1/SAMDC) Polyclonal Antibody, Unconjugated (AP57286) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.