Mouse Anti-Human Acetoacetyl-CoA Synthetase Monoclonal Antibody

Cat. No. CAB11476MH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse Monoclonal Antibody to Human Acetoacetyl-CoA Synthetase
Species	Human
Source	Mouse
Antigen Description	Acetoacetyl-CoA synthetase, also known as Acyl-CoA synthetase family member 1, Protein sur-5 homolog, AACS, and ACSF1, is a member of the ATP-dependent AMP-binding enzyme family. AACS is highly expressed in kidney, heart and brain, but low in liver. AACS is an essential enzyme for the synthesis of fatty acid and cholesterol from ketone bodies. AACS in adipose tissue plays an important role in utilizing ketone body for the fatty acid-synthesis during adipose tissue development. AACS was found to be highly expressed in mouse adipose tissue, and GC box and C/EBPs motif were crucial for AACS promoter activity. Moreover, AACS promoter activity was controlled mainly by C/EBPalpha during adipogenesis. AACS is a novel cytosolic ketone body (acetoacetate)-specific ligase, the physiological role of which remains to be elucidated
Specificity	Human AACS / ACSF1. No cross-reactivity with Baculovirus lysate in ELISA
Immunogen	Recombinant human AACS protein
Isotype	Mouse IgG2b
Clone	8I7G4F2

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Applications	Western blot; ELISA
Dilution	Western blot: This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human AACS in WB. Using a DAB detection system, the detection limit for human AACS is approximately 4 ng/lane under non-reducing conditions and 1 ng/lane under reducing conditions.ELISA: This antibody can be used at 0.5 - 1 µg/mL with the appropriate secondary reagents to detect human AACS. The detection limit for human AACS is 0.039 ng/well.
Preparation	This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, insect cell-derived, recombinant human AACS.The IgG fraction of the cell culture supernatant was purified by Protein A affinity chromatography
Format	0.2 µm filtered solution in PBS with 5% trehalose
Storage	This antibody can be stored at 2-8 centigrade for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20 centigrade to -70 centigrade. Preservative-Free.Sodium azide is recommended to avoid contamination (final concentration 0.05%-0.1%). It is toxic to cells and should be disposed of properly. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	AACS acetoacetyl-CoA synthetase [Homo sapiens]
Official Symbol	AACS
Synonyms	AACS; acetoacetyl-CoA synthetase; ACSF1; acyl CoA synthetase family member 1; FLJ12389; SUR 5; protein sur-5 homolog; acetoacetate-CoA ligase; acyl-CoA

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	synthetase family member 1; homolog of C. elegans supressor of ras 5 (sur-5); SUR-5;
Gene ID	65985
mRNA Refseq	NM_023928
Protein Refseq	NP_076417
MIM	614364
UniProt ID	Q86V21
Chromosome Location	12q24.31
Pathway	Butanoate metabolism, organism-specific biosystem; Butanoate metabolism, conserved biosystem;
Function	ATP binding; acetoacetate-CoA ligase activity; butyrate-CoA ligase activity; ligase activity; nucleotide binding;

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