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Tel: 858.875.1900 Fax: 858.622.0609

FASN Antibody (Center)
Mouse Monoclonal Antibody (Mab)
Catalog # AM2067B

Specification

FASN Antibody (Center) - Product Information

Application	WB, IF,E
Primary Accession	P49327
Other Accession	NP_004095.4
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,κ
Antigen Region	942-973

FASN Antibody (Center) - Additional Information

Gene ID 2194

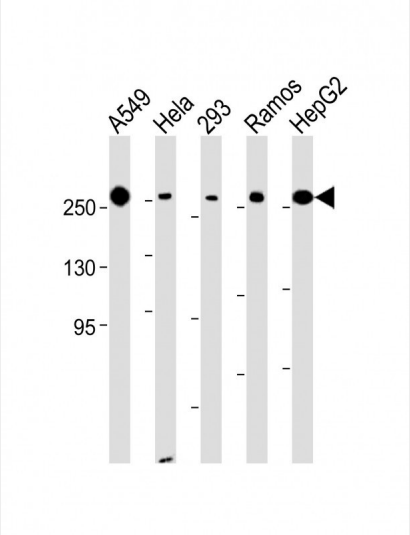
Other Names
Fatty acid synthase, [Acyl-carrier-protein] S-acetyltransferase, [Acyl-carrier-protein] S-malonyltransferase, 3-oxoacyl-[acyl-carrier-protein] synthase, 3-oxoacyl-[acyl-carrier-protein] reductase, 3-hydroxyacyl-[acyl-carrier-protein] dehydratase, Enoyl-[acyl-carrier-protein] reductase, Oleoyl-[acyl-carrier-protein] hydrolase, FASN, FAS

Target/Specificity
This FASN antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 942-973 amino acids from the Central region of human FASN.

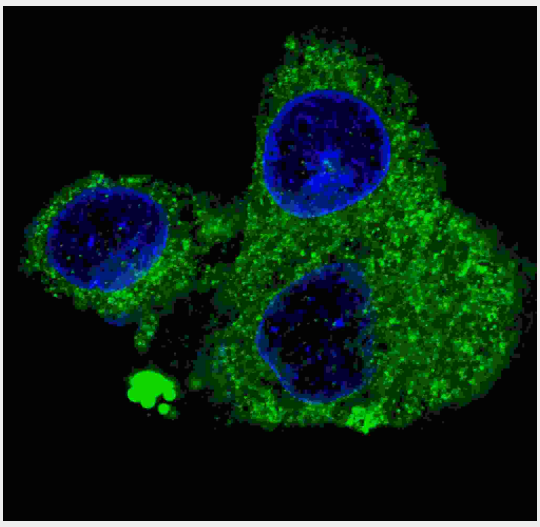
Dilution
WB~~1:1000
IF~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw



All lanes : Anti-FASN Antibody (Center) at 1:500-1:2000 dilution Lane 1: A549 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: 293 whole cell lysate Lane 4: Ramos whole cell lysate Lane 5: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 273 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent confocal image of HepG2 cells stained with FASN (Center) antibody. HepG2

cycles.

Precautions
FASN Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

FASN Antibody (Center) - Protein Information

Name FASN

Synonyms FAS

Function
Fatty acid synthetase is a multifunctional enzyme that catalyzes the de novo biosynthesis of long-chain saturated fatty acids starting from acetyl-CoA and malonyl-CoA in the presence of NADPH. This multifunctional protein contains 7 catalytic activities and a site for the binding of the prosthetic group 4'-phosphopantetheine of the acyl carrier protein ([ACP]) domain.

Cellular Location
Cytoplasm. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

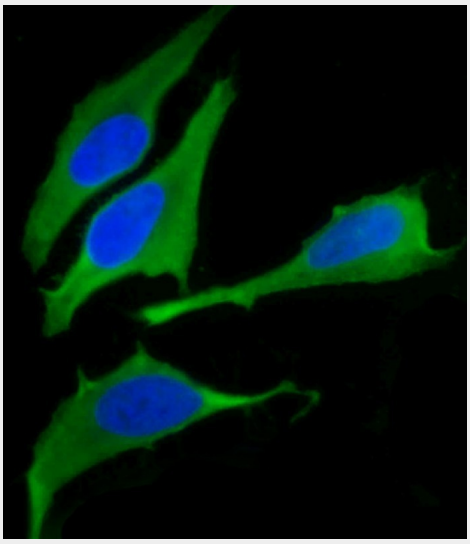
Tissue Location
Ubiquitous. Prominent expression in brain, lung, liver and mammary gland.

FASN Antibody (Center) - Protocols

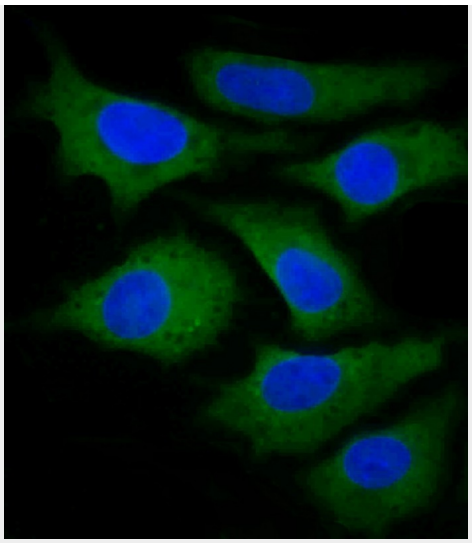
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

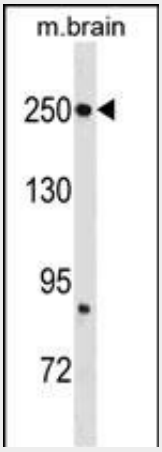
cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AM2067b FASN primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/ml, 5 min). Note the highly specific localization of the FASN immunosignal to the cytoplasm, supported by Human Protein Atlas Data (http://www.proteinatlas.org/ENSG0000 0169710).



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized U-2 OS ((human cervical epithelial adenocarcinoma cell line) cells labeling FASN with AM2067b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (35503) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm Hela cell line. The nuclear counter stain is DAPI (blue).



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized HepG2 (human liver hepatocellular carcinoma cell line) cells labeling FASN with AM2067b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (35503) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm HepG2 cell line. The nuclear counter stain is DAPI (blue).



FASN Antibody (Center) (Cat. #AM2067b) western blot analysis in mouse brain tissue lysates (35µg/lane).This demonstrates the FASN (Center) antibody detected the FASN (Center) protein (arrow).

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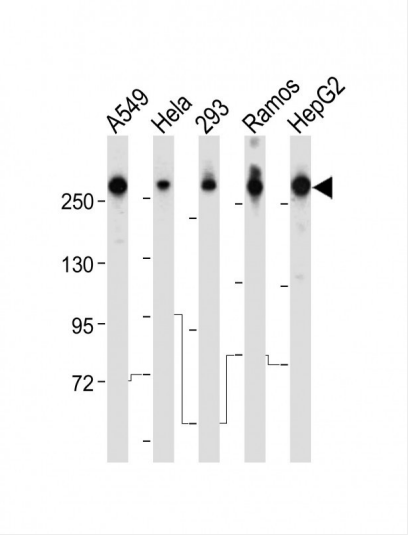
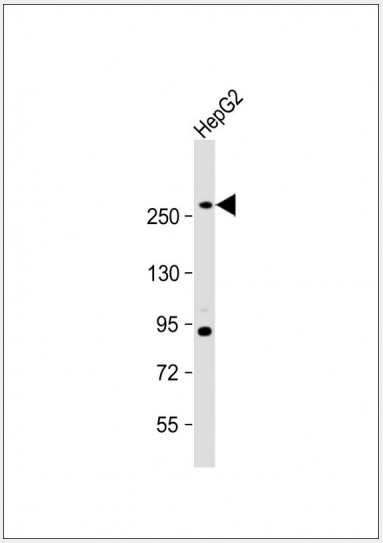


All lanes : Anti-FASN Antibody (Center) at 1:8000 dilution Lane 1: A549 whole cell lysate Lane 2: Hela whole cell lysate Lane 3: 293 whole cell lysate Lane 4: Ramos whole cell lysate Lane 5: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 273 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti- at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 273 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

FASN Antibody (Center) - Background

The enzyme encoded by this gene is a

multifunctional
protein. Its main function is to catalyze the synthesis of
palmitate from acetyl-CoA and malonyl-CoA, in the presence of
NADPH, into long-chain saturated fatty acids. In some cancer cell
lines, this protein has been found to be fused with estrogen
receptor-alpha (ER-alpha), in which the N-terminus of FAS is fused
in-frame with the C-terminus of ER-alpha.

FASN Antibody (Center) - References

References for protein:
1.Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
2.Nguyen, P.L., et al. J. Clin. Oncol. 28(25):3958-3964(2010)
3.Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
4.Tischler, V., et al. Histopathology 56(6):811-815(2010)
5.Dorn, C., et al. Int J Clin Exp Pathol 3(5):505-514(2010)
References for HepG2 cell line:
1. Knowles BB, et al. (1980). Human hepatocellular carcinoma cell lines secrete the major plasma proteins and hepatitis B surface antigen. Science 209: 497-499.[PubMed: 6248960].
2. Darlington GJ, et al. (1987). Growth and hepatospecific gene expression of human hepatoma cells in a defined medium. In Vitro Cell. Dev. Biol. 23: 349-354.[PubMed: 3034851].
3. Ihrke, G; Neufeld, EB; Meads, T; Shanks, MR; Cassio, D; Laurent, M; Schroer, TA; Pagano, RE et al. (1993). "WIF-B cells: an in vitro model for studies of hepatocyte polarity". Journal of Cell Biology 123 (6): 1761–1775. [PubMed:7506266].
4. Mersch-Sundermann, V.; Knasmüller, S.; Wu, X. J.; Darroudi, F.; Kassie, F. (2004). "Use of a human-derived liver cell line for the detection of cytoprotective, antigenotoxic and cogenotoxic agents". Toxicology 198 (1–3): 329–340. [PubMed:15138059].