

# Anti-Fatty Acid Synthase Antibody

## R1706-8



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IHC-P
<b>Molecular Wt:</b>	273 kDa

**Description:** Fatty acid biosynthesis is mediated by seven catalytic enzymes and an acyl carrier protein (ACP), to which various acyl intermediates are covalently attached. Fatty Acid Synthase (FAS) is the anabolic enzyme that contains the seven unique catalytic sites and mediates the conversion of acetyl-CoA and malonyl-CoA, in the presence of the cofactor NADPH, into long-chain saturated fatty acids, such as palmitate. Human Fatty Acid Synthase cDNA encodes a 2,504 amino acid protein. Catalytically active Fatty Acid Synthase is a homodimer. Human Fatty Acid Synthase mRNA is variably expressed with abundant levels present in brain, lung and liver. Fatty acid synthetic metabolism is abnormally elevated in tumor cells and may support cell growth or survival of malignant cancers.

**Immunogen:** Recombinant protein within human Fatty Acid Synthase aa 801-1050.

**Positive control:** A549, MCF-7, HeLa, human prostate tissue, human breast cancer tissue.

**Subcellular location:** Cytoplasm. Melanosome.

**Database links:** SwissProt: P49327 Human | P19096 Mouse | P12785 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500-1:2,000
<b>IF-Cell</b>	1:50-1:200
<b>IHC-P</b>	1:50-1:200

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

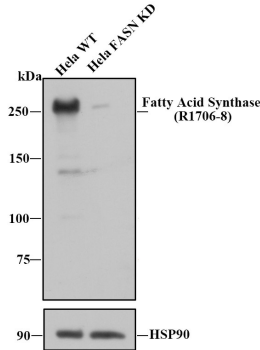
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## Images

**Fig1:** All lanes: Western blot analysis of Fatty Acid Synthase with anti-Fatty Acid Synthase antibody (R1706-8) at 1:1,000 dilution.

Lane 1: Wild-type Hela whole cell lysate.

Lane 2: FASN knockdown Hela whole cell lysate.

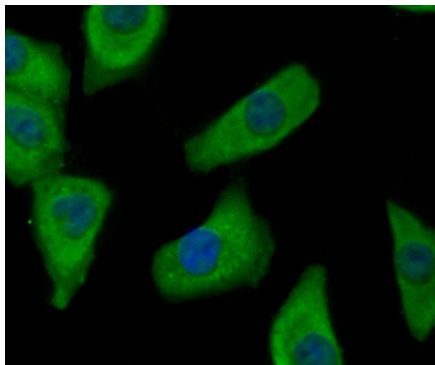


R1706-8 was shown to specifically react with FASN in wild-type Hela cells. Weakened band was observed when FASN knockdown samples were tested. Wild-type and FASN knockdown samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary Anti-FASN antibody (R1706-8, 1/1,000) and Anti-HSP90 antibody (ET1605-56, 1/10,000) were used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG H&L (HRP) Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Cell lysate was provided by Ubigene Biosciences (Ubigene Biosciences Co., Ltd., Guangzhou, China).



**Fig2:** Western blot analysis of Fatty Acid Synthase on A549 cell lysate using anti-Fatty Acid Synthase antibody at 1/1,000 dilution.



**Fig3:** ICC staining Fatty Acid Synthase in A549 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

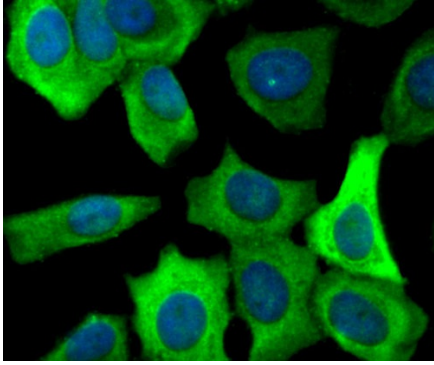
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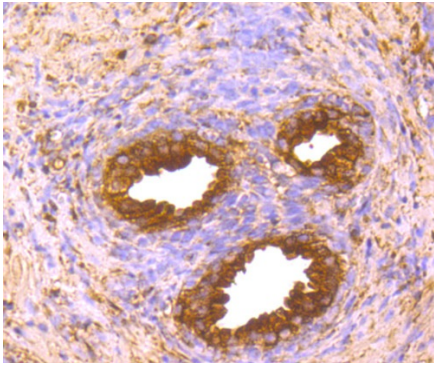
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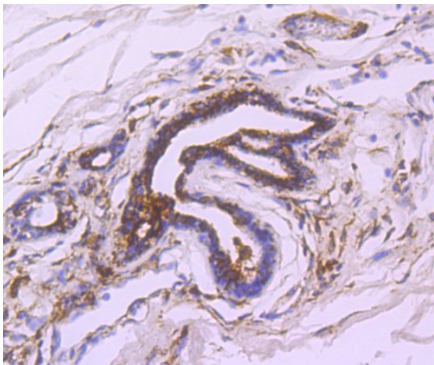
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**Fig4:** ICC staining Fatty Acid Synthase in MCF-7 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.



**Fig5:** Immunohistochemical analysis of paraffin-embedded human prostate tissue using anti-Fatty Acid Synthase antibody. Counter stained with hematoxylin.



**Fig6:** Immunohistochemical analysis of paraffin-embedded human breast cancer tissue using anti-Fatty Acid Synthase antibody. Counter stained with hematoxylin.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. Sun X et al. Insulin Dissociates the Effects of Liver X Receptor on Lipogenesis, Endoplasmic Reticulum Stress, and Inflammation. *J Biol Chem* 291:1115-22 (2016).
2. Rolyan H et al. Defects of Lipid Synthesis Are Linked to the Age-Dependent Demyelination Caused by Lamin B1 Overexpression. *J Neurosci* 35:12002-17 (2015).

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