

Product Specification Sheet

**Human Fatty Acid Synthase (FASN) Antibodies**

<b>Cat # FASN12-P</b>	Mouse FASN Control/Blocking Peptide # 2	<b>SIZE:</b> 100 µg
<b>Cat # FASN12-A</b>	Rabbit anti-mouse FASN IgG (affinity pure) # 2	<b>SIZE:</b> 100 µg

**Fatty Acid Synthase (FASN)** catalyzes 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 FASN is fused in-frame with the C-terminus of ER-alpha. FASN is highly expressed in adipocytes and liver. FASN is a central enzyme in de novo lipogenesis. FASN is a target for SREBP and is upregulated by LXR activation; it is also one of the accepted markers for insulin resistance, SREBP and LXR activation.

**FASN:** Bovine: 2513 aa; Pig: 2411 aa; Chick: 2511 aa; human: 2511 aa; Rat: 2505 aa; mouse: 2504 aa; 272.4kDa; Chromosome: 11E2. Expression: high in brain, lungs, and liver.

**Source of Antigen and Antibodies**

<b>Antigen</b>	18-aa peptide of Mouse FASN (Protein accession # (P19096) ; ref. 1); designated as FASN12-P control/blocking peptide conjugated to KLH; epitope location ~ C-terminus
<b>Antibody host/type</b>	Rabbit, Polyclonal IgG # 2 (Cat # FASN12-A), purified over antigen-Agarose
<b>2-Ab</b>	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
<b>Negative Control Ab</b>	Non-immune rabbit IgG (Cat # 20009-1) to be used as -ve control for ELISA, WB, IHC etc.

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

**Reconstitute powder** in PBS at 1mg/ml

**Control/blocking peptide**

100 ug/100 ul solution lyophilized powder

Supplied in Buffer: PBS pH 7.5,

**Reconstitute powder** in PBS at 1 mg/ml.

**Storage**

**Short-term:** unopened, undiluted vials for less than a week at 4oC.

**Long-term:** at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20°C or below.

**Shipping:** 4°C for solutions and room temp for powder.

**Recommended Usage**

**Western Blotting:** 1-10 µg/ml; using affinity pure antibody (chemiluminescence technique).

**ELISA:** 1:100K; using 50-100 ng control peptide/well.

**Histochemistry & Immunofluorescence:** Not tested; we recommend the use of affinity purified antibody at 2-10 µg/ml.

**Specificity & Cross-reactivity**

Mouse FASN12-P peptide sequence is 100% conserved in mouse, rat and bovine; 94% conserved in human. We recommend using FASN11-A for detecting human FASN protein. Antibody cross-reactivity in various species is not known. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at the web site).

**General References:**

- Ueno K. (2000). Genes to Cells 5 (10), 859–869.

**List of related items, data sheets, and publications, using ADI antibodies is posted on the web site**

\*This product is for in vitro research use only.

**Related material available from ADI**

Antibodies to mouse and human FADS and FASNs.

FASN12-A-P

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