Fatty Acid Synthase (C20G5) Rabbit mAb

**Background:** Fatty acid synthase (FAS) catalyzes the synthesis of long-chain fatty acids from acetyl-CoA and malonyl-CoA. FAS is active as a homodimer with seven different catalytic activities and produces lipids in the liver for export to metabolically active tissues or storage in adipose tissue. In most other human tissues, FAS is minimally expressed since they rely on circulating fatty acids for new structural lipid synthesis (1).

More recently, increased expression of FAS has emerged as a phenotype common to most human carcinomas. In breast cancer, immunohistochemical staining showed that the levels of FAS are directly related to the size of breast tumors (2). Studies also showed that FAS is highly expressed in lung and prostate cancers and that FAS expression is an indicator of poor prognosis in breast and prostate cancer (3-5). Furthermore, inhibition of FAS is selectively cytotoxic to human cancer cells (5). Thus, increased interest has focused on FAS as a potential target for the diagnosis and treatment of cancer as well as the metabolic syndrome (6,7).

**Specificity/Sensitivity:** Fatty Acid Synthase (C20G5) Rabbit mAb detects endogenous levels of total fatty acid synthase protein.

**Source/Purification:** Fatty Acid Synthase (C20G5) Rabbit mAb is produced by immunizing rabbits with a synthetic peptide around Gly46 corresponding to the sequence of mAb is produced by immunizing rabbits with a synthetic peptide around Gly46 corresponding to the sequence of human fatty acid synthase.

**Background References:**

**Recommended Antibody Dilutions:**
- Western blotting: 1:1000
- Immunoprecipitation: 1:50
- Immunohistochemistry (Paraffin): 1:50†
- Fixative: 3% Formaldehyde/Methanol
- Immunofluorescence (IF-IC): 1:50

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

Please visit www.cellsignal.com for a complete listing of recommended companion products.
Immunohistochemical analysis of paraffin-embedded breast carcinoma using Fatty Acid Synthase (C20G5) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded lung carcinoma using Fatty Acid Synthase (C20G5) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded mouse brown fat using Fatty Acid Synthase (C20G5) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded hepatocellular carcinoma using Fatty Acid Synthase (C20G5) Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded lymphoma, showing staining of adipocytes, using Fatty Acid Synthase (C20G5) Rabbit mAb.

Immunohistochemical analysis of frozen SKOV-3 xenograft using Fatty Acid Synthase (C20G5) Rabbit mAb.