Human Fatty Acid Synthase/FASN Antibody

Monoclonal Mouse IgG_{2B} Clone # 647114

Catalog Number: MAB59271

DESCRIPTION

Species Reactivity	Human
Specificity	Detects Fatty Acid Synthase/FASN in direct ELISAs and Western blots. In direct ELISAs, approximately 25% cross-reactivity with recombinant mouse (rm) Ephrin-A2 is observed and no cross-reactivity with recombinant human (rh) Ephrin-A3, -B3, rmEphrin-A4, -A5, -B1 or -B2 is observed.
Source	Monoclonal Mouse IgG_{2B} Clone # 647114
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Fatty Acid Synthase/FASN Ser10-Cys212 Accession # P49327
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

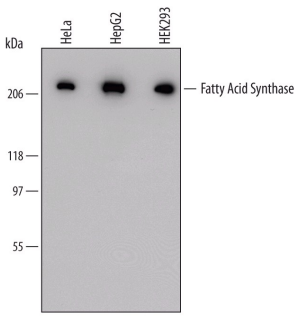
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.25 µg/mL	See Below

DATA

Western Blot



Detection of Human Fatty Acid Synthase/FASN by Western Blot. Western blot shows lysates of HepG2 human hepatocellular carcinoma cell line, HeLa human cervical epithelial carcinoma cell line, and HEK293 human embryonic kidney cell line. PVDF Membrane was probed with 0.25 µg/mL of Mouse Anti-Human Fatty Acid Synthase/FASN Monoclonal Antibody (Catalog # MAB59271) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Fatty Acid Synthase/FASN at approximately 220 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

BACKGROUND

FASN (Fatty Acid Synthase; also FAS) is a cytosolic 270-280 kDa member of the short chain dehydrogenase/reductase family 27X. It is expressed in neurons, skeletal muscle, adipocytes and hepatocytes, and both catalyzes the formation of palmitic acid from acetylCoA and malonylCoA, and likely mediates the transfer of fatty acids to peptides. Human FASN is 2511 amino acids (aa) in length ands contains multiple domains, including a β-ketoacyl synthase domain (aa 1-414), an acyl and malonyl transferase domain (aa 429-817), an enoyl reductase domain (aa 1563-1863), a β-ketoacyl reductase domain (aa 1864-2118) and a thioesterase domain (aa 2207-2511). FASN exists as an antiparallel homodimer. There is one theoretical alternative start site at Met2073. Over aa 9-212, human FASN shares 92% aa identity with mouse FASN.