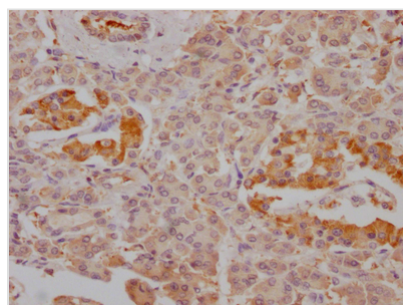




FBP1 Antibody

Product Code	CSB-RA787345A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P09467
Immunogen	A synthesized peptide derived from human FBP1
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	Catalyzes the hydrolysis of fructose 1,6-bisphosphate to fructose 6-phosphate in the presence of divalent cations, acting as a rate-limiting enzyme in gluconeogenesis. Plays a role in regulating glucose sensing and insulin secretion of pancreatic beta-cells. Appears to modulate glycerol gluconeogenesis in liver. Important regulator of appetite and adiposity; increased expression of the protein in liver after nutrient excess increases circulating satiety hormones and reduces appetite-stimulating neuropeptides and thus seems to provide a feedback mechanism to limit weight gain.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cancer; Metabolism; Signal transduction
Gene Names	FBP1
Accession NO.	4G3

Image



IHC image of CSB-RA787345A0HU diluted at 1:100 and staining in paraffin-embedded human pancreatic tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Description

FBP1 catalyzes the hydrolysis of fructose-1,6-bisphosphate (F-1,6-BP) to fructose-6-phosphate and inorganic phosphate, which is the rate-limiting enzyme in glycolysis. F-1,6-BP is an allosteric activator of Pyruvate Kinase Type M2 (PKM2), a key enzyme in glycolysis. It's also a crucial tumor suppressor in human cancers. FBP1 expression is thought to be a possible prognostic factor for cancers such as gastric cancer, breast cancer, and lung cancer. FBP1 expression is reduced, which leads to an increase in glycolysis and the amount of cancer stem cells (CSCs). Furthermore, in addition to its role in glycolysis inhibition, overexpressed FBP1 has been shown to limit tumor growth and migration in breast cancer and renal cell carcinoma via interacting with the hypoxia-inducible factor (HIF) domain in some studies.

The preparation of the recombinant FBP1 antibody involves the mammalian cell lines expression of plasma vectors containing FBP1 antibody genes. B cells isolated from immunized animals' blood were treated to obtain RNA, which underwent reverse transcription to yield DNA genes. Antibody genes were sequenced and screened from the DNA. After transient expression, cell supernatant was collected and then purified using Affinity-chromatography to obtain the recombinant FBP1 antibody. This recombinant FBP1 antibody is recommended to use in the FBP1 for the detection of FBP1 protein from Human.