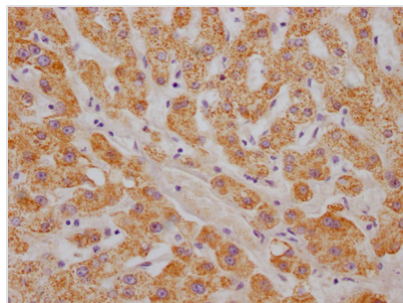




ABAT Recombinant Monoclonal Antibody

Product Code	CSB-RA242969A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P80404
Immunogen	A synthesized peptide derived from human ABAT
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	Catalyzes the conversion of gamma-aminobutyrate and L-beta-aminoisobutyrate to succinate semialdehyde and methylmalonate semialdehyde, respectively. Can also convert delta-aminovalerate and beta-alanine.
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	Neuroscience; Cancer; Metabolism; Signal transduction
Gene Names	ABAT
Clone No.	5B6

Image



IHC image of CSB-RA242969A0HU diluted at 1:100 and staining in paraffin-embedded human liver tissue performed on a Leica BondTM 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

To create the ABAT recombinant monoclonal antibody, a series of complex and sequential procedures are necessary. Initially, the ABAT monoclonal antibody is harvested, and its gene sequence is determined. Subsequently, a vector containing the ABAT monoclonal antibody gene is designed and transfected into a host cell line for culture. The immunogen for the ABAT monoclonal antibody is



then produced using a synthetic peptide derived from human ABAT. The ABAT recombinant monoclonal antibody is later purified using affinity chromatography to ensure high purity. Finally, the antibody's specificity is confirmed by testing it in ELISA and IHC assays, which assess its ability to accurately recognize ABAT. It only detects human ABAT protein.

The ABAT protein is an enzyme that plays a critical role in the catabolism of the neurotransmitter gamma-aminobutyric acid (GABA) and the regulation of its levels in the brain and other tissues. ABAT activity is regulated by the availability of its co-substrate, pyridoxal 5'-phosphate (PLP), which is a derivative of vitamin B6. Changes in ABAT activity can affect the levels of GABA in the brain, which can have important implications for the regulation of neuronal excitability and the pathogenesis of neurological disorders, including epilepsy and anxiety disorders. ABAT has also been implicated in other biological processes, including the metabolism of other amino acids, such as alanine and beta-alanine, and the regulation of glucose metabolism.