

Product datasheet for **UM800070CF**

ABAT Mouse Monoclonal Antibody [Clone ID: UMAB178]

Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB178
Applications:	10k-ChIP, IF, IHC, WB
Recommended Dilution:	IHC 1:100~200
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Human recombinant protein fragment corresponding to amino acids 29-323 of human ABAT(NP_065737) produced in E.coli.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	53.2 kDa
Gene Name:	4-aminobutyrate aminotransferase
Database Link:	NP_065737 Entrez Gene 81632 Rat Entrez Gene 268860 Mouse Entrez Gene 18 Human P80404



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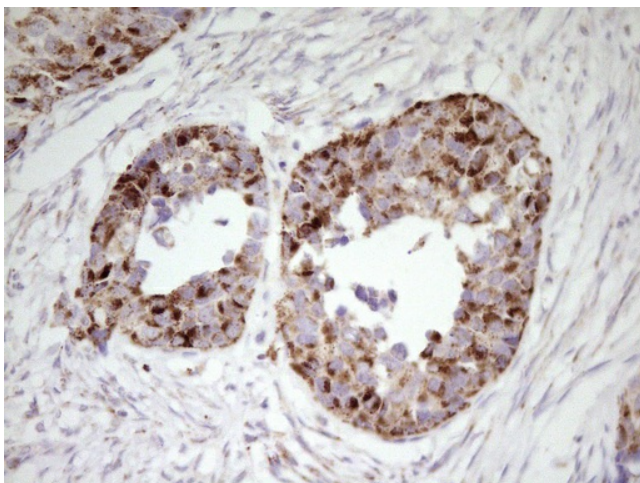
Background: 4-aminobutyrate aminotransferase (ABAT) is responsible for catabolism of gamma-aminobutyric acid (GABA), an important, mostly inhibitory neurotransmitter in the central nervous system, into succinic semialdehyde. The active enzyme is a homodimer of 50-kD subunits complexed to pyridoxal-5-phosphate. The protein sequence is over 95% similar to the pig protein. GABA is estimated to be present in nearly one-third of human synapses. ABAT in liver and brain is controlled by 2 codominant alleles with a frequency in a Caucasian population of 0.56 and 0.44. The ABAT deficiency phenotype includes psychomotor retardation, hypotonia, hyperreflexia, lethargy, refractory seizures, and EEG abnormalities. Multiple alternatively spliced transcript variants encoding the same protein isoform have been found for this gene. [provided by RefSeq, Jul 2008]

Synonyms: GABA-AT; GABAT; NPD009

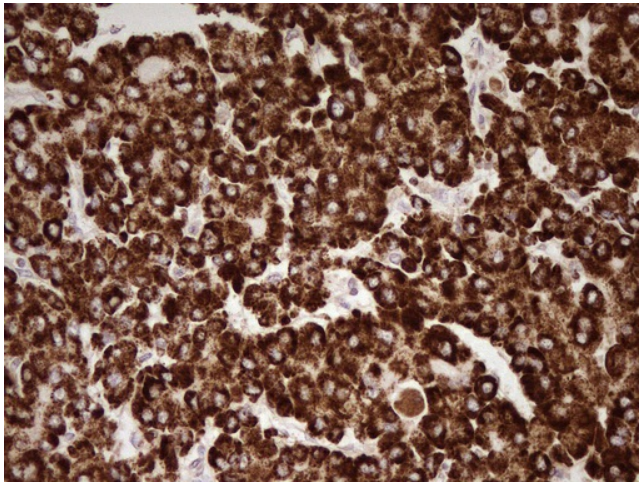
Protein Families: Druggable Genome

Protein Pathways: Alanine, aspartate and glutamate metabolism, beta-Alanine metabolism, Butanoate metabolism, Metabolic pathways, Propanoate metabolism, Valine, leucine and isoleucine degradation

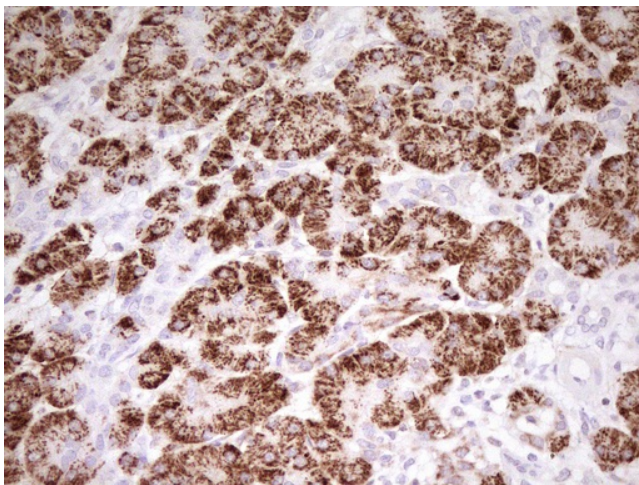
Product images:



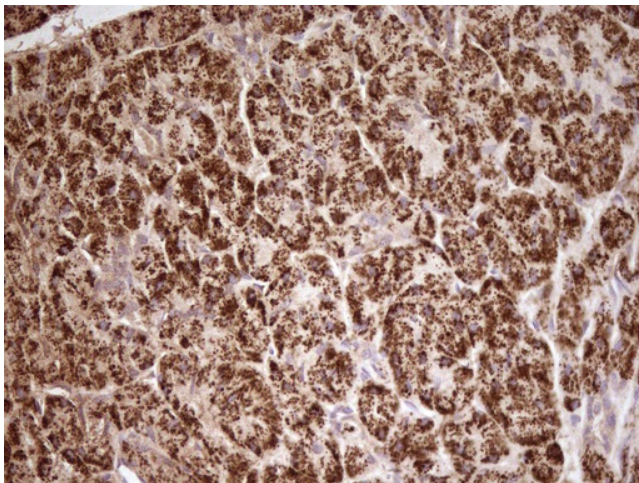
Immunohistochemical staining of paraffin-embedded carcinoma of human kidney tissue using ABAT clone UMAB178, mouse monoclonal antibody. Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3min, [UM800070] was diluted 1:200 using HRP detection and DAB chromogen. Images shows strong cytoplasmic and membranous staining is present in the tumor cells.



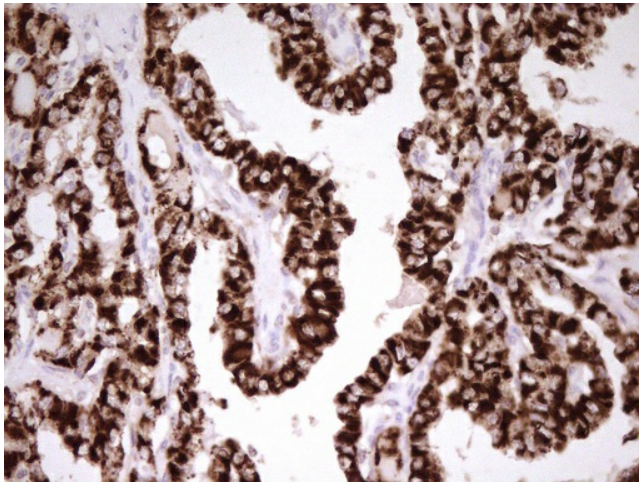
Immunohistochemical staining of paraffin-embedded carcinoma of human liver tissue using ABAT clone UMAB178, mouse monoclonal antibody. Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3min, [UM800070] was diluted 1:200 using HRP detection and DAB chromogen. Images shows strong cytoplasmic and membranous staining is present in the tumor cells.



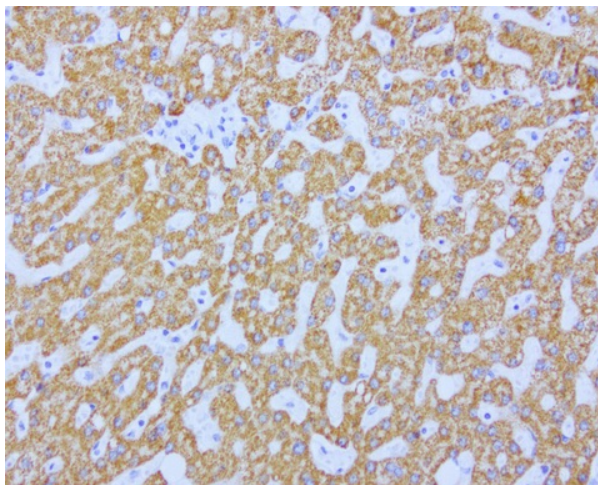
Immunohistochemical staining of paraffin-embedded human pancreas tissue using ABAT clone UMAB178, mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3min, UM800070 was diluted 1:200 and detection shown with HRP enzyme and DAB chromogen. Images shows strong cytoplasmic and membranous staining is present in the exocrine glandular cells.



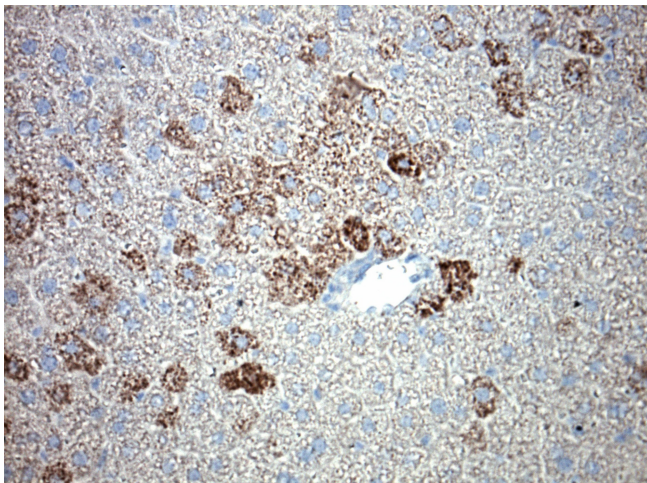
Immunohistochemical staining of paraffin-embedded carcinoma of human pancreas tissue using ABAT clone UMAB178, mouse monoclonal antibody. Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3min, [UM800070] was diluted 1:200 and detection shown with HRP enzyme and DAB chromogen. Images shows strong cytoplasmic and membranous staining is present in the tumor cells.



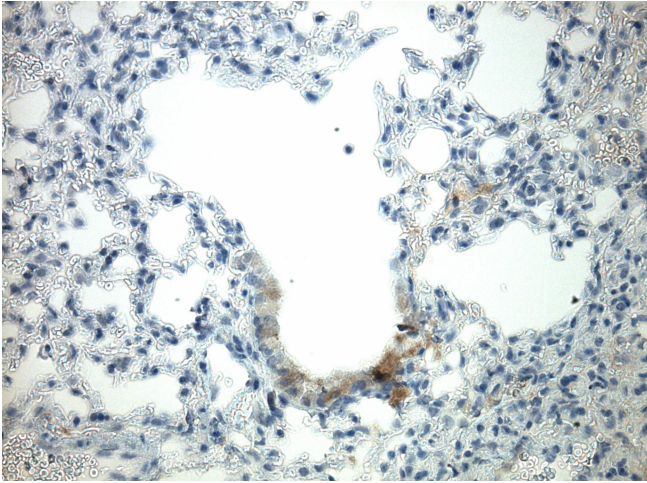
Immunohistochemical staining of paraffin-embedded Carcinoma of Human thyroid tissue using anti-ABAT mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 120°C for 3min, [UM800070]) (1:200)



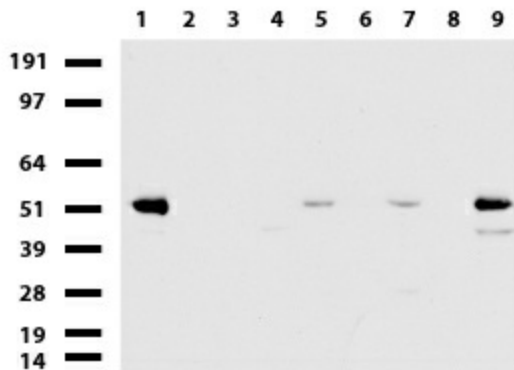
Immunohistochemical staining of paraffin-embedded human liver using ABAT clone UMAB178, mouse monoclonal antibody at 1:200 dilution of 1mg/mL using Polink2 Broad HRP DAB for detection. [UM800070] requires heat-induced epitope retrieval with citrate pH6.0 at 110°C for 3min using pressure chamber/cooker. The image shows strong cytoplasmic and membranous staining of the hepatocytes no staining in the bile duct.



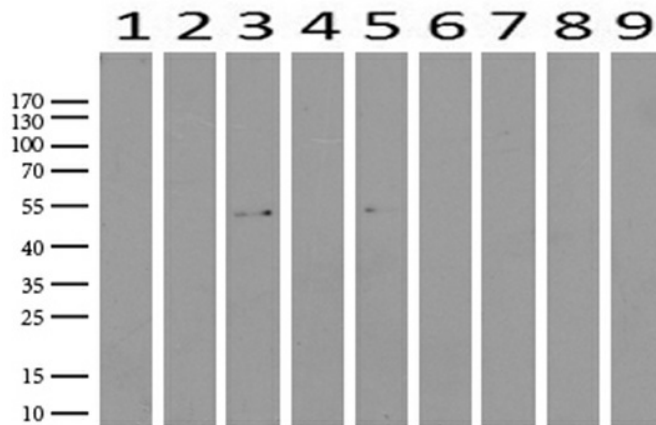
Immunohistochemical staining of paraffin-embedded mouse liver tissue using anti-ABAT clone UMAB178 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM800070] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



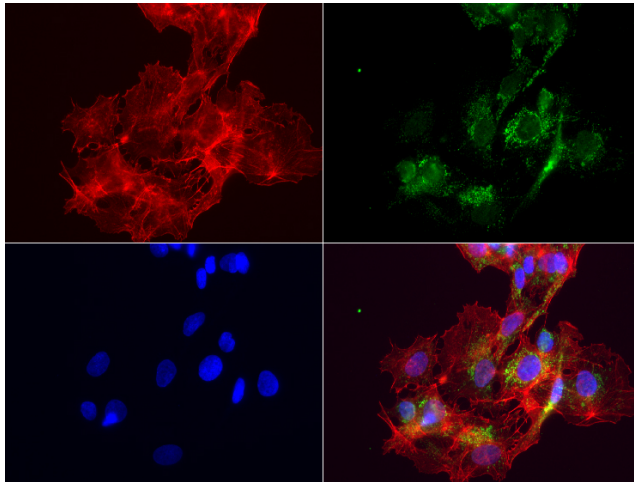
Immunohistochemical staining of paraffin-embedded mouse lung tissue using anti-ABAT clone UMAB178 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM800070] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



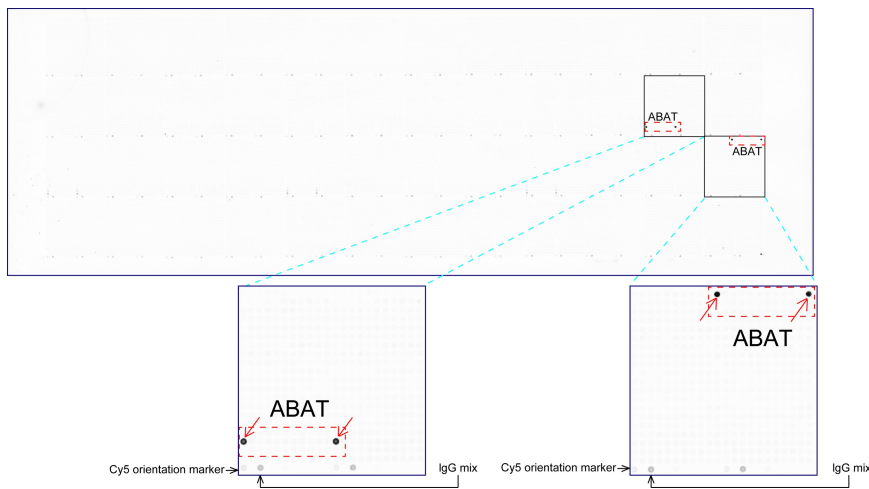
Western blot of cell lysates (35ug) from 9 different cell lines (1: HepG2, 2: HeLa, 3: SV-T2, 4: A549, 5: COS7, 6: Jurkat, 7: MDCK, 8: PC-12, 9: MCF7).



Western blot analysis of extracts (15ug) from 9 Human tissue by using anti-ABAT monoclonal antibody (1: Testis; 2: Uterus; 3: Breast; 4: Brain; 5: Liver; 6: Ovary; 7: Thyroid gland; 8: colon;;9:Spleen). (1:500) Dilution: 1:500



Immunofluorescent staining of HepG2 cells using anti-ABAT mouse monoclonal antibody ([UM800070], green, 1:50). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue).



OriGene overexpression protein microarray chip was immunostained with UltraMAB anti-ABAT mouse monoclonal antibody ([UM800070]). The positive reactive proteins are highlighted with two red arrows in the enlarged subarray. All the positive controls spotted in this subarray are also labeled for clarification (1:100).