

## Product datasheet for **UM800072**

### ABAT Mouse Monoclonal Antibody [Clone ID: UMAB180]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	UMAB180
Applications:	IF, IHC, WB
Recommended Dilution:	IHC 1:1000
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:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	0.5~1.0 mg/ml (Lot Dependent)
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:	<a href="#">NP_065737</a> <a href="#">Entrez Gene 81632 Rat</a> <a href="#">Entrez Gene 268860 Mouse</a> <a href="#">Entrez Gene 18 Human</a> <a href="#">P80404</a>



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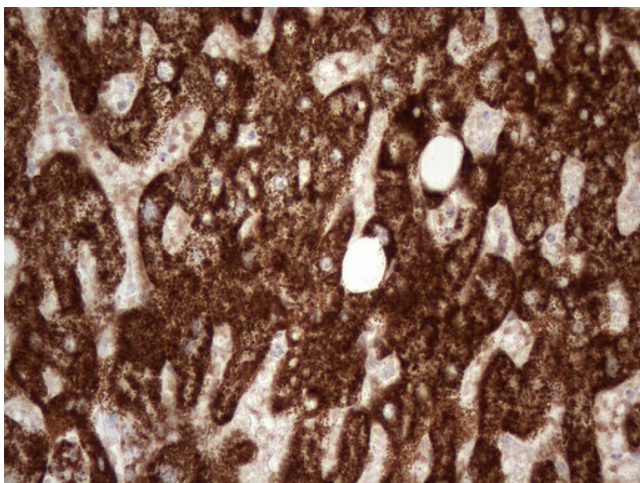
**Background:** 4-aminobutyrate aminotransferase (ABAT) is responsible for catabolism of gamma-aminobutyric acid (GABA), an important, mostly inhibitory neurotransmitter in the central nervous system, into succinic semialdehyde. The active enzyme is a homodimer of 50-kD subunits complexed to pyridoxal-5-phosphate. 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

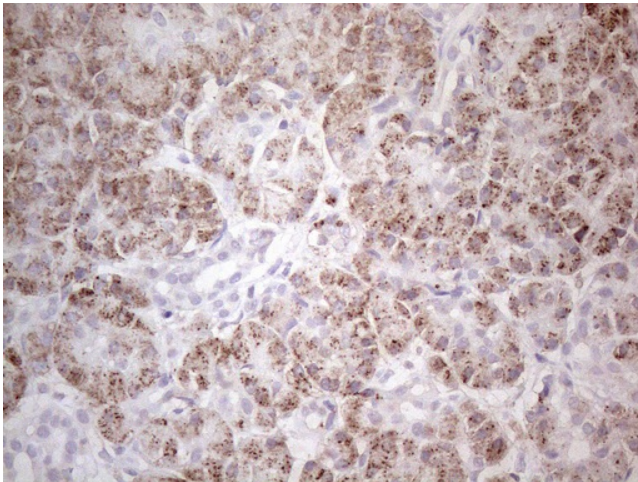
**Protein Families:** Druggable Genome

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

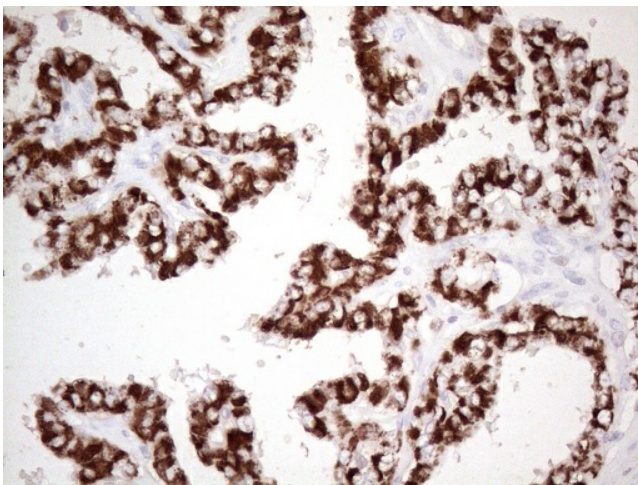
### Product images:



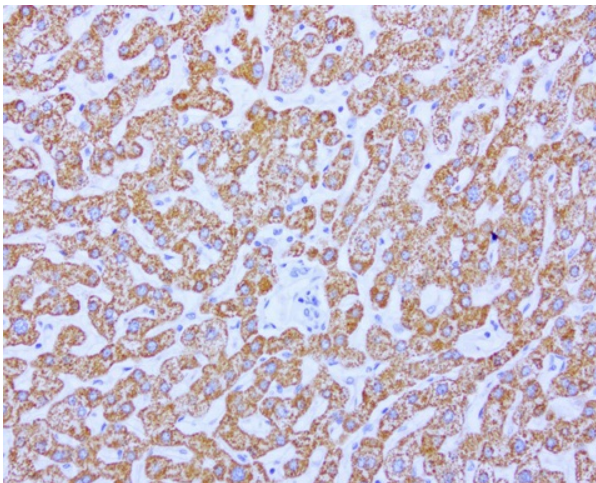
Immunohistochemical staining of paraffin-embedded human liver tissue using ABAT clone UMAB180, mouse monoclonal antibody. Using heat-induced epitope retrieval with 1mM EDTA in 10mM Tris buffer (pH8.0) at 110°C for 3min prior in pressure chamber/cooker to UM800072 diluted 1:1000 application. Detection with HRP enzyme and DAB chromogen was use to visualize result. Strong cytoplasmic and membranous staining is seen in the hepatocytes. Staining was not observed in the bile ducts of the liver.



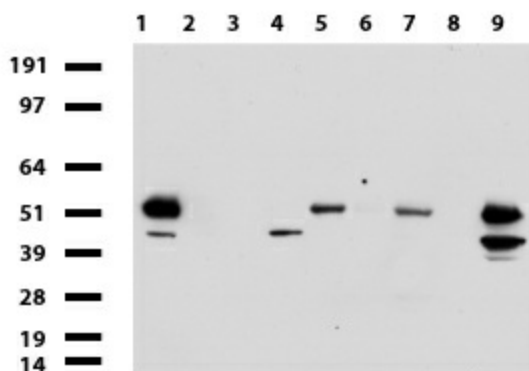
Immunohistochemical staining of paraffin-embedded Human pancreas tissue using anti-ABAT mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris buffer (pH8.0) at 110°C for 10min, UM800072) (1:1000)



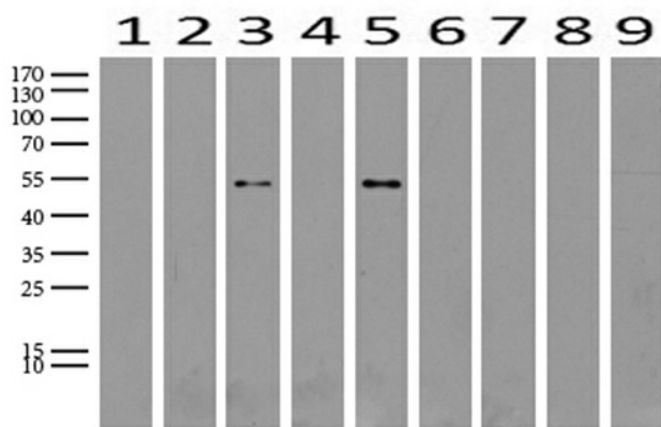
Immunohistochemical staining of paraffin-embedded in human thyroid carcinoma using ABAT clone UMAB180 mouse monoclonal antibody. Heat-induced epitope retrieval with 1mM EDTA in 10mM Tris buffer (pH8.0) at 110°C for 3min prior to UM800072 diluted 1:1000 application. Detection with HRP enzyme and DAB chromogen was used to visualize result. Image shows strong cytoplasmic and membranous staining is present in the tumor cells.



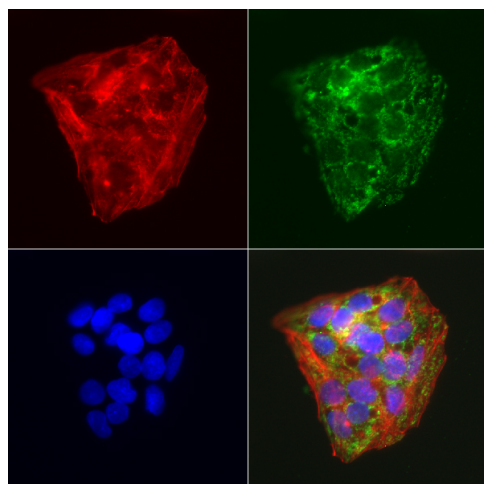
Immunohistochemical staining of paraffin-embedded human liver using ABAT clone UMAB180, mouse monoclonal antibody at 1:1500 dilution of 1mg/mL using Polink2 Broad HRP DAB for detection. UM800072 requires heat-induced epitope retrieval with citrate pH6.0 at 110°C for 3min using pressure chamber/cooker. The image shows strong cytoplasmic and membranous staining of the hepatocytes no staining in the bile duct.



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). Dilution: 1:500



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 (UM800072, green, 1:100). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue).