

Basic Information

Product Name	Anti-GPNMB Antibody	
Gene Name	GPNMB	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived mouse GPNMB/Gpnmb recombinant protein (Position: R164-D564). Human Gpnmb shares 70.2% and 89% amino acid (aa) sequence identity with human and rat Gpnmb, respectively.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	64 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

Background Information

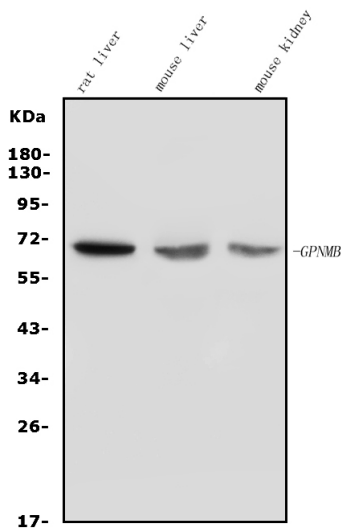
Transmembrane glycoprotein NMB is a protein that in humans is encoded by the GPNMB gene. It is mapped to 6 B2.3; 6 23.82 cM. The protein encoded by this gene is a type I transmembrane glycoprotein which shows homology to the pMEL17 precursor, a melanocyte-specific protein. GPNMB shows expression in the lowly metastatic human melanoma cell lines and xenografts but does not show expression in the highly metastatic cell lines. GPNMB may be involved in

growth delay and reduction of metastatic potential. Two transcript variants encoding different isoforms have been found for this gene.

Reference

Anti-GPNMB Antibody被引用在2文献中。

Selected Validation Data



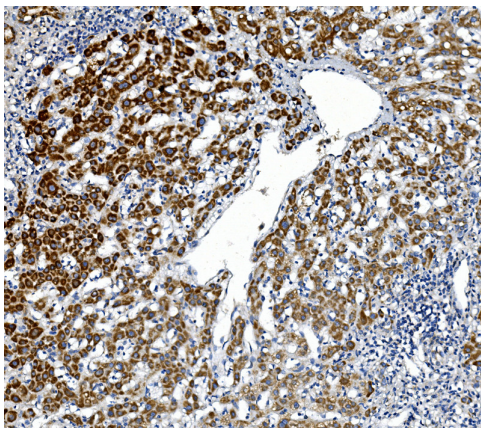
Western blot analysis of GPNMB using anti-GPNMB antibody (A02439-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat liver tissue lysates,

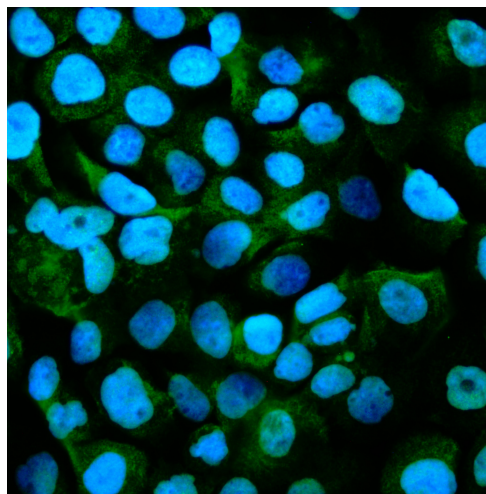
Lane 2: mouse liver tissue lysates,

Lane 3: mouse kidney tissue lysates.

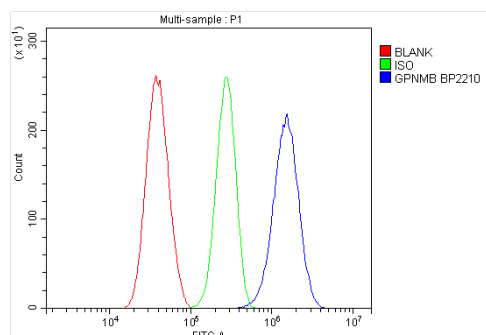
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-GPNMB antigen affinity purified polyclonal antibody (A02439-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for GPNMB at approximately 64 kDa. The expected band size for GPNMB is at 64 kDa.



IHC analysis of GPNMB using anti-GPNMB antibody (A02439-1). GPNMB was detected in a paraffin-embedded section of human liver cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-GPNMB Antibody (A02439-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of GPNMB using anti-GPNMB antibody (A02439-1). GPNMB was detected in an immunocytochemical section of A431 cells. The section was incubated with rabbit anti-GPNMB Antibody (A02439-1) at a dilution of 1:100. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of U87 cells using anti-GPNMB antibody (A02439-1).

Overlay histogram showing U87 cells stained with A02439-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-GPNMB Antibody (A02439-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.