

AM26364PU-N**Monoclonal Antibody to Barmotin - Purified**

Quantity:	0.1 mg
Concentration:	0.1 mg/ml
Background:	<p>Tight junctions function to maintain cellular polarity and permeability barriers in epithelial and endothelial cells. Several molecules of the tight junction complex have been identified. The monoclonal antibody 7H6 reacts with a 155 kD tight junction-associated protein also designated barmotin. This protein is preferentially localized at the periphery of tight junctions of hepatocytes and other epithelia. The 7H6 antigen is also detectable in the intestine and kidney. Studies with Madin-Darby canine kidney (MDCK) cells indicate the 7H6 antigen to be an important molecule for regulation of the barrier function of tight junctions.</p> <p>Confocal laser scanning microscopy revealed that the expression of 7H6 antigen decreased sequentially during hepatocarcinogenesis. The 7H6 antigen was expressed intensely at the apical and basolateral membrane of cancer cells with glandular pattern.</p> <p>Examination of human gastric and colon cancer tissues showed that tight junctions were maintained highly in the well-differentiated (gland-forming) adenocarcinomas, but reduced in poorly-differentiated adenocarcinomas. In MDCK cells the disappearance of 7H6 expression is closely related with cell spreading in vitro induced hepatocyte growth factor/scatter factor.</p>
Host / Isotype:	Mouse / IgM
Recommended Isotype Controls:	SM13P
Clone:	7H6
Format:	State: Liquid Ig fraction Purification: Protein G Buffer System: PBS Preservatives: 0.02% sodium azide Stabilizers: 0.2% bovine serum albumin
Applications:	<p>Immunohistochemistry on frozen sections: The typical starting working dilution is 1:10.</p> <p>Western blot: The typical starting working dilution is 1:10.</p> <p>Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
Specificity:	This antibody detects Barmotin.
Species Reactivity:	Tested: Human, canine, mouse, rat, chicken
Storage:	Store at 2 - 8 °C. Shelf life: one year from despatch.

General Readings:

1. Zhong Y, Saitoh T, Minase T, Sawada N, Enomoto K, Mori M. Monoclonal antibody 7H6 reacts with a novel tight junction-associated protein distinct from ZO-1, cingulin and ZO-2. *J Cell Biol.* 1993 Jan;120(2):477-83. PubMed PMID: 8421059.
2. Kojima T, Sawada N, Zhong Y, Oyamada M, Mori M. Sequential changes in intercellular junctions between hepatocytes during the course of acute liver injury and restoration after thioacetamide treatment. *Virchows Arch.* 1994;425(4):407-12. PubMed PMID: 7820303.
3. Zhong Y, Enomoto K, Tobioka H, Konishi Y, Satoh M, Mori M. Sequential decrease in tight junctions as revealed by 7H6 tight junction-associated protein during rat hepatocarcinogenesis. *Jpn J Cancer Res.* 1994 Apr;85(4):351-6. PubMed PMID: 8200847.
4. Zhong Y, Enomoto K, Isomura H, Sawada N, Minase T, Oyamada M, et al. Localization of the 7H6 antigen at tight junctions correlates with the paracellular barrier function of MDCK cells. *Exp Cell Res.* 1994 Oct;214(2):614-20. PubMed PMID: 7925655.
5. Kimura M, Sawada N, Kimura H, Isomura H, Hirata K, Mori M. Comparison between the distribution of 7H6 tight junction-associated antigen and occludin during the development of chick intestine. *Cell Struct Funct.* 1996 Feb;21(1):91-6. PubMed PMID: 8726478.
6. Kimura H, Sawada N, Tobioka H, Isomura H, Kokai Y, Hirata K, et al. Bacterial lipopolysaccharide reduced intestinal barrier function and altered localization of 7H6 antigen in IEC-6 rat intestinal crypt cells. *J Cell Physiol.* 1997 Jun;171(3):284-90. PubMed PMID: 9180897.
7. Muto S, Sato Y, Umeki Y, Yoshida K, Yoshioka T, Nishikawa Y, et al. HGF/SF-induced spreading of MDCK cells correlates with disappearance of barmotin/7H6, a tight junction-associated protein, from the cell membrane. *Cell Biol Int.* 2000;24(7):439-46. PubMed PMID: 10875891.