

**MONOCLONAL ANTIBODY TO HUMAN
BARMOTIN/7H6-ANTIGEN (Tight Junction-Associated Protein)
clone 7H6**



Catalog nr	HM2102 (lot number and expiry date are indicated on the label)
Description	<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> <p>This antibody reacts with the human, canine, mouse, rat and chicken protein.</p>
Species	Mouse IgM
Formulation	1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.02% sodium azide and 0.2% bovine serum albumin.
Application	The antibody can be used for Western blotting and immunohistology on frozen sections.
Use	For Western blotting and immunohistology dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.
Storage and stability	Product should be stored at 4°C. Under recommended storage conditions, product is stable for one year.
Precautions	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and Federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result with the use of or derivation of this product.
References	<ol style="list-style-type: none">1. Zhong, Y et al; Monoclonal antibody 7H6 reacts with a novel tight junction-associated protein distinct from ZO-cingulin and ZO-2. <i>J Cell Biol</i> 1993, <i>120</i>: 4772. Kojima, T et al; Sequential changes in intercellular junctions between hepatocytes during the course of acute liver injury and restoration after thioacetamide treatment. <i>Virchows Arch</i> 1994, <i>425</i>: 4073. Zhong, Y et al; Sequential decrease in tight junctions as revealed by 7H6 tight junction-associated protein during rat hepatocarcinogenesis. <i>Jpn J Cancer Res</i> 1994, <i>85</i>: 3514. Zhong, Y et al; Localization of the 7H6 antigen at tight junctions correlates with the paracellular barrier function of MDCK cells. <i>Exp Cell Res</i> 1994, <i>214</i>: 6145. Kimura, M et al; Comparison between the distribution of 7H6 tight junction-associated antigen and occludin during the development of chick intestine. <i>Cell Struct Funct</i> 1996, <i>21</i>: 916. Kimura, H et al; Bacterial lipopolysaccharide reduced intestinal barrier function and altered localization of 7H6 antigen in IEC-6 rat intestinal crypt cells. <i>J Cell Physiol</i> 1997, <i>171</i>: 2847. Muto, S et al; HGF/SF-induce spreading of MDCK cells correlates with disappearance of barmotin/7H6, a tight junction-associated protein, from the cell membrane. <i>Cell Biol Int</i> 2000,<i>24</i>: 439
Also available	HM2099 Monoclonal antibody against JAM-1, clone M.Ab.F11