

Technical Data Sheet

Purified Mouse Anti-M-Cadherin

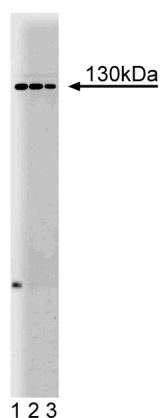
Product Information

Material Number:	611100
Size:	50 µg
Concentration:	250 µg/ml
Clone:	5/M-Cadherin
Immunogen:	Mouse M-Cadherin aa. 253-366
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Target MW:	130 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Cadherins are a family of transmembrane glycoproteins involved in the Ca²⁺-dependent cell-cell adhesion that occurs in many tissues. Members of this family include P-Cadherin, E-Cadherin (uvomorulin), N-Cadherin, R-Cadherin, Cadherin-5, L-CAM, and EP-Cadherin. These proteins are similar in their domain structure (45-74% amino acid conservation), Ca²⁺ and protease sensitivity, and molecular weight. However, cadherins have distinct tissue expression patterns and immunological reactivities. M (muscle)-Cadherin, another member of the Cadherin family, was discovered in myogenic mouse cells where it is present at low levels in myoblasts. It is expressed in prenatal and adult skeletal muscle and plays a role in skeletal muscle cell differentiation, particularly the fusion of myoblasts into myotubes. It is upregulated upon induction of myotube formation. M-Cadherin also forms complexes with the catenins in skeletal muscle cells, which then interact with the cytoskeleton. Therefore, it is thought that the M-Cadherin-cytoskeleton interaction may play a role in aligning myoblasts during fusion.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of M-Cadherin on mouse neonate lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-M-Cadherin.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20° C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2006 BD



BD

BD Biosciences

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Donalies M, Cramer M, Ringwald M, Starzinski-Powitz A. Expression of M-cadherin, a member of the cadherin multigene family, correlates with differentiation of skeletal muscle cells. *Proc Natl Acad Sci U S A*. 1991; 88(18):8024-8028.(Biology)

Kang JS, Feinleib JL, Knox S, Ketteringham MA, Krauss RS. Promyogenic members of the Ig and cadherin families associate to positively regulate differentiation. *Proc Natl Acad Sci U S A*. 2003; 100(7):3989-3994.(Clone-specific: Western blot)

Kaufmann U, Kirsch J, Irintchev A, Wernig A, Starzinski-Powitz A. The M-cadherin catenin complex interacts with microtubules in skeletal muscle cells: implications for the fusion of myoblasts. *J Cell Sci*. 1999; 112(1):55-68.(Biology)

Kuch C, Winnekendonk D, Butz S, Unvericht U, Kemler R, Starzinski-Powitz A. M-cadherin-mediated cell adhesion and complex formation with the catenins in myogenic mouse cells. *Exp Cell Res*. 1997; 232(2):331-338.(Biology)

Shimoyama Y, Shibata T, Kitajima M, Hirohashi S. Molecular cloning and characterization of a novel human classic cadherin homologous with mouse muscle cadherin. *J Biol Chem*. 1998; 273(16):10011-10018.(Biology)