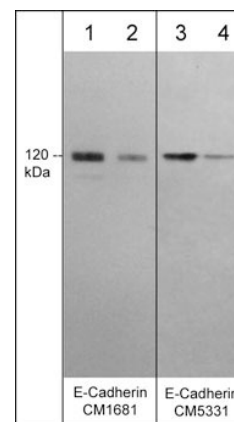


Background

Cadherins are transmembrane glycoproteins vital in calcium-dependent cell-cell adhesion during tissue differentiation. Cadherins cluster to form foci of homophilic binding units. A key determinant to the strength of the cadherin-mediated adhesion may be by the juxtamembrane region in cadherins. This region induces clustering and also binds to the protein p120 catenin. The cytoplasmic region is highly conserved in sequence and has been shown experimentally to regulate the cell-cell binding function of the extracellular domain of E-cadherin, possibly through interaction with the cytoskeleton. Many cadherins are regulated by phosphorylation, including N-cadherin and E-cadherin. N-cadherin is phosphorylated by c-Src at Tyr-820, Tyr-853, Tyr-860, Tyr-884, and Tyr-886. Phosphorylation of Tyr-860 can disrupt cadherin binding to β -catenin. Since many of these tyrosine sites are conserved in the cadherin family, phosphorylation of these sites may be critical for cadherin function.

Background References

- Takeichi, M. (1988) *Development* 102:639.
 Xu, Y. et al. (1997) *J. Biol. Chem.* 272(21):13463.
 Qi, J. et al. (2006) *Mol. Biol. Cell* 17(3):1261.



Western blot image of human A431 cells (lanes 1-4). The blots were probed with mouse monoclonals anti-E-cadherin (Cytoplasmic) at 1:1000 (lane 1) and 1:4000 (lane 2) and anti-E-cadherin (C-terminal fragment) at 1:250 (lane 3) and 1:1000 (lane 4).

Applications

WB	1:250
ELISA	1:1000

Species Reactivity

Hu, Rt, Ms

Isotype: IgG1

Specificity

Clone M533 was purified by Protein G affinity purification. The E-cadherin antibody detects a 120 kDa* protein corresponding to endogenous E-cadherin expressed in human A431 cells.

End user should determine optimal dilution for their particular applications and experiments.

Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Immunogen

Uniprot ID: P09803

Clone (M533) was generated from a mouse recombinant E-cadherin protein containing amino acids in the C-terminal region. This sequence is highly conserved in human and rat E-cadherin.

Buffer and Storage

Mouse monoclonal, protein G purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Related Products

- CM1681 E-cadherin (Cytoplasmic) Mouse Monoclonal
- CK6260 E-cadherin Phospho-Regulation Antibody Sampler Kit
- CM1701 N-cadherin (Cytoplasmic) Mouse Monoclonal
- CK6310 N-cadherin Phospho-Regulation Antibody Sampler Kit
- CM1181 β -Catenin Mouse Monoclonal

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