E-Cadherin Phospho-Regulation

Antibody Sampler Kit

Cat. # CK6260
Size Kit

Kit Summary

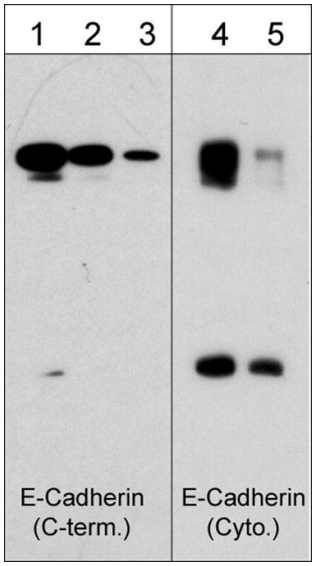
The E-cadherin phospho-regulation antibody sampler kit can be used to examine phosphorylation of E-cadherin at Tyr -835. The kit includes monoclonal and polyclonal antibodies to monitor the total level of expression for E-Cadherin and secondary reagents for detection of these antibodies.

Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
CM1681	E-Cadherin (Cytoplasmic)	Mouse mAb	50 µl	WB, E, IP, ICC, IHC	Hu, Rt, Ms	1:1000
CP1921	E-Cadherin (a.a. 774-786)	Rabbit pAb	50 µl	WB, E	Hu, Rt, Ms	1:1000
CP1901	N-Cadherin (a.a. 853-864)[E-Cadherin (a.a. 828-839)]	Rabbit pAb	50 µl	WB, E	Hu, Rt, Ms	1:1000
CP1951	N-Cadherin (Y860)[E-Cadherin (Y835)], phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	Hu, Rt, Ms	1:1000
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 µl	WB, E	Ms	1:5000
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 µl	WB, E, ICC, IHC	Rb	1:5000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, Ms = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit

Formalin fixed, citric acid treated parafin sections of embryonic Rat E16 intestines. Sections were probed with anti-E-Cadherin (CM1681) then anti-mouse:HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



Western blot image of human A431 cells that were probed with rabbit polyclonal anti-E-Cadherin (a.a. 774-786) at 1:250 (lane 1), 1:1000 (lane 2), and 1:4000 (lane 3) or mouse monoclonal anti-E-cadherin (Cytoplasmic) at 1:250 (lane 4) and 1:1000 (lane 5).

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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 (Tyr-835 in E-cadherin) 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

Qi, J. et al. (2006) Mol. Biol. Cell 17(3):1261.

Takeichi, M. (1988) Development 102:639.

Buffer and Storage

Mouse monoclonal and rabbit polyclonal antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. The secondary reagents are supplied in the same buffer without azide. Store all at –20°C. Stable for 1 year.

Product Citations

Cat. #	Citation & Application
CM1681	Pastor-Cleriguesab, A et al. (2016) Curr Eye Res. 41(7):890. (IHC: bovine cornea)
CM1681	Signorelli, P. et al. (2015) Nutr Cancer. 67(3):494. (WB: human HCT116 cells)
CM1681	Liu, D. et al. (2015) Am J Pathol. 185(1):110. (ICC/IHC: rat Liver epithelial cells)
CM1681	Milara, J. et al. (2015) COPD. 12(3):320. (ICC: human bronchial epithelial cells)
CM1681	Milara, J. et al. (2014) Pulm Pharmacol Ther. 28(2):138. (Protein Array: human bronchial endothelial cells)
CM1681	Milara, J. et al. (2013) Thorax. 68(5):410-20. (IF: human pulmonary tissue)
CM1681	Vittal, R. et al. (2013) AJP Lung Cell Mol Phys 304(6):401. (WB: rat & human Epithelial Cells)
CP1921	Gu, H. et al. (2014) FASEB Journal 28(10):4223. (WB: human small airway epithelial cells)
CP1921	SalaheldeenE. et al. (2014) J Histo Cytochem. 62(9):632. (WB: seminiferous tubules)
CP1951	Wang, M. et al. (2014) Cell Mol Neurobiol. 34(1):123 (WB: MN9D neurons)
MS3001	Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western blot: MDCK epithelial, A549, and HEK293

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