

N-Cadherin Phospho-Regulation Antibody Sampler Kit

Catalog # CK6310

Kit Components:

Catalog#	Description	Host	Size	Applications	Species Reactivity	MW (kDa)
CP1801	N-Cadherin (Tyr-820), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	130
CP1851	Unphosphorylated N-Cadherin (Tyr-820)	Rabbit pAb	50 µl	WB, E	H, R, M	130
CP1951	N-Cadherin (Tyr-860), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	130
CP1751	N-Cadherin (a.a. 811-824)	Rabbit pAb	50 µl	WB, E, IP, ICC	H, R, M	130
CP1901	N-Cadherin (a.a. 853-864)	Rabbit pAb	50 µl	WB, E	H, R, M	130
CM1701	N-Cadherin (Cytoplasmic)	Mouse mAb	50 µl	WB, E, IP, ICC	H, R, M	130

Applications: WB = western blot, E = ELISA, ICC = Immunocytochemistry, IP = immunoprecipitation.

Species: H = Human, R = Rat, M = Mouse

Kit Summary:

The N-cadherin phospho-regulation antibody sampler kit can be used to examine phosphorylation of N-cadherin at Tyr-820 and Tyr-860. The kit also includes monoclonal and polyclonal antibodies to monitor total expression levels of N-Cadherin.

Buffers and Storage:

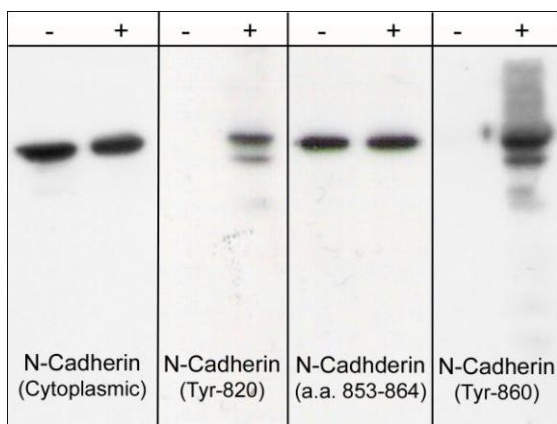
Mouse monoclonal and rabbit polyclonal antibodies are supplied in 50µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Background:

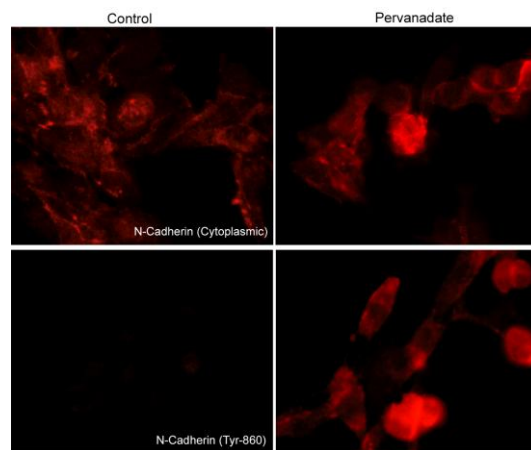
Cadherins are transmembrane glycoproteins vital in calcium-dependent cell-cell adhesion during tissue differentiation. Cadherins cluster to form foci of homophilic binding units. A key determinant to the strength of the cadherin-mediated adhesion may be by the juxtamembrane region in cadherins. This 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.

References:

- Xu, Y. et al. (1997) J. Biol. Chem. 272(21):13463.
 Xu, Y. & Carpenter, G. (1999) J. Cell. Bioch. 75:264.
 Qi, J. et al. (2006) Mol. Biol. Cell 17(3):1261.



Western blot image of human endothelial cells untreated or treated with pervanadate (1 mM) for 30 min. Blots were probed with anti-N-Cadherin (Cytoplasmic), anti-N-Cadherin (Tyr-820), anti-N-Cadherin (a.a. 853-864), and anti-N-Cadherin (Tyr-860).



Immunocytochemical labeling of phosphorylated N-Cadherin in pervanadate-treated mouse C2C12. The cells were probed with N-Cadherin (Cytoplasmic) and N-Cadherin(Tyr-860) antibodies, followed by immunofluorescent detection.

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