Kit Includes	Quantity	Applications	Reactivity	MW (kDa)	Isotype
α-E-Catenin (23B2) Rabbit mAb #3240	40 µl	W IP	H M Mk	100	Rabbit IgG
N-Cadherin Antibody #4061	40 µl	W	H M R Mk (Dg)	140	Rabbit
E-Cadherin (24E10) Rabbit mAb #3195	40 µl	W IHC-P IHC-F IF-IC F	H M (B) (Dg) (Pg)	135	Rabbit IgG
P-Cadherin (C13F9) Rabbit mAb #2189	40 µl	W IF-IC	H (Mk)	120	Rabbit IgG
Pan-Cadherin (28E12) Rabbit mAb #4073	40 µl	W	H M R	130-150	Rabbit IgG
β-Catenin (D10A8) XP®Rabbit mAb #8480	40 µl	W IP IHC-P IHC-F IF-F IF-IC F ChIP	H M R Mk (Z) (B) (Pg) (GP) (Hr)	92	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody #7074	100 µl				Goat

Applications Key: W=Western Blotting IP=Immunoprecipitation IHC-P=Immunohistochemistry (Paraffin) IHC-F=Immunohistochemistry (Frozen) IF-F=Immunofluorescence (Frozen) IF-IC=Immunofluorescence (Immunocytochemistry) F=Flow Cytometry ChIP=Chromatin IP

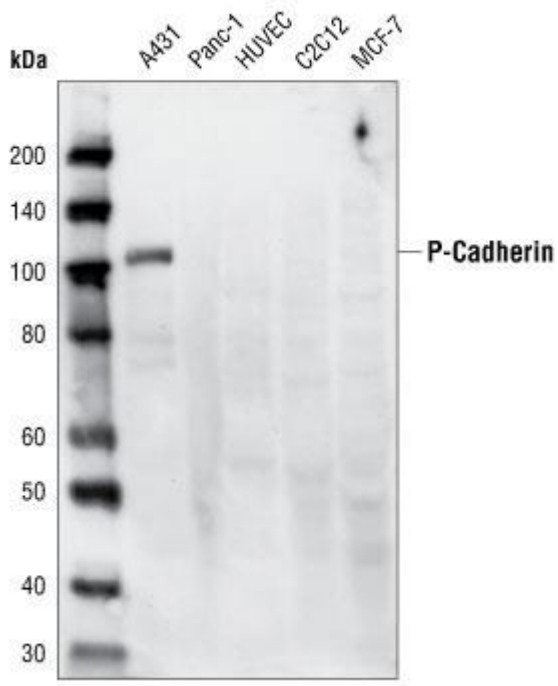
Reactivity Key: H=Human M=Mouse R=Rat Mk=Monkey Z=Zebrafish B=Bovine Dg=Dog Pg=Pig GP=Guinea Pig Hr=Horse

Species enclosed in parentheses are predicted to react based on 100% sequence homology.

Specificity / Sensitivity

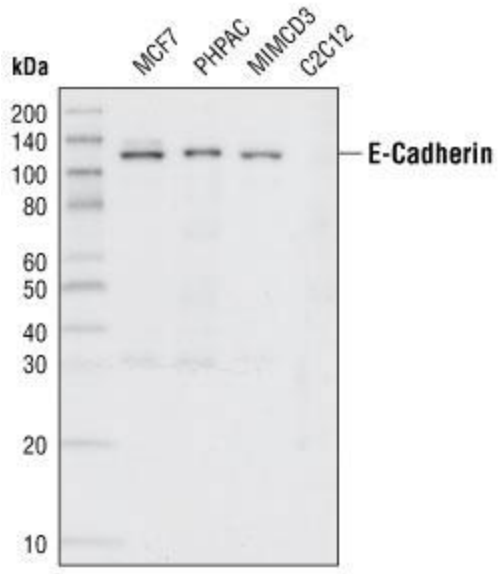
Each antibody in the Cadherin-Catenin Antibody Sampler Kit recognizes only its specific target and does not cross-react with other family members. Pan-Cadherin (28E12) Rabbit mAb #4073 detects endogenous levels of total cadherin proteins.

Western Blotting



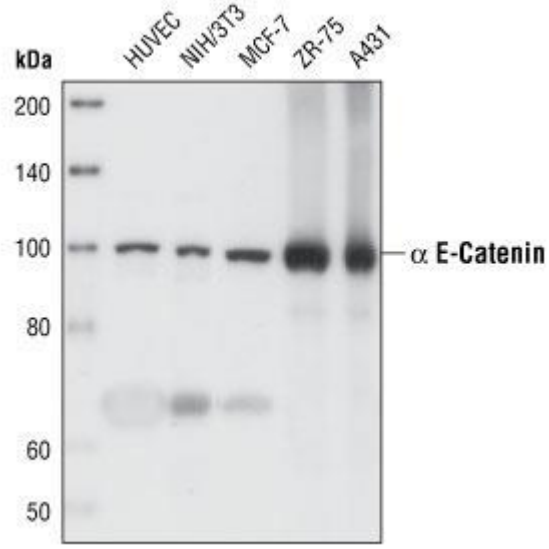
Western blot analysis of extracts from various cell lines using P-Cadherin (C13F9) Rabbit mAb #2189.

Western Blotting



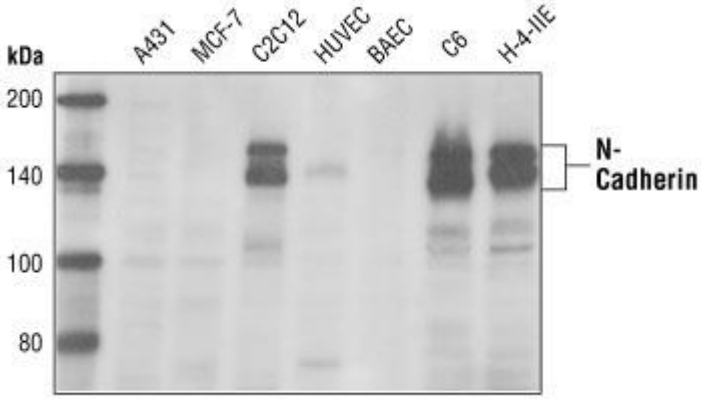
Western blot analysis of extracts from various cell lines using E-Cadherin (24E10) Rabbit mAb #3195.

Western Blotting



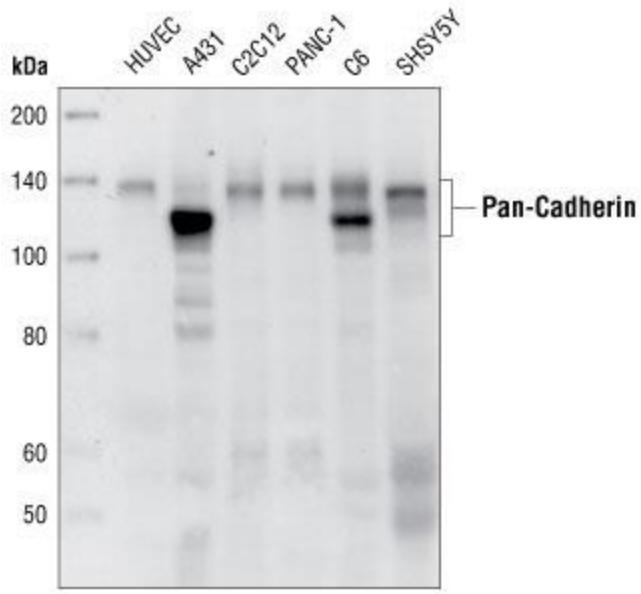
Western blot analysis of extracts from HUVEC, NIH/3T3, MCF-7, ZR-75 and A431 cells using α-E-Catenin (23B2) Rabbit mAb #3240.

Western Blotting



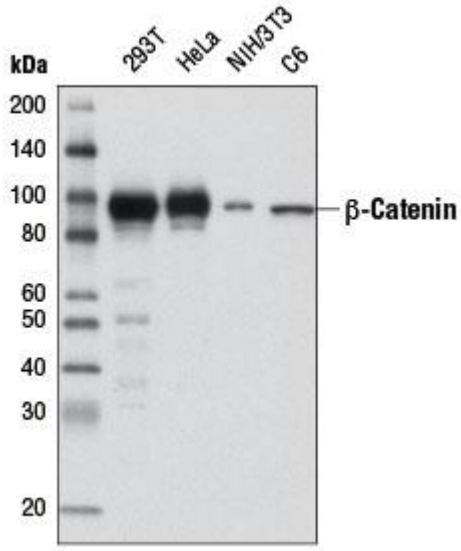
Western blot analysis of extracts from various cell lines using N-Cadherin Antibody #4061.

Western Blotting



Western blot analysis of extracts from various cell lines using Pan-Cadherin (28E12) Rabbit mAb #4073.

Western Blotting



Western blot analysis of extracts from various cell lines using β-Catenin (D10A8) XP® Rabbit mAb #8480.

Description

This Cadherin-Catenin Antibody Sampler kit contains reagents to examine the total protein levels of key proteins found in cell-cell adherens junctions. The kit contains enough primary and secondary antibodies to perform four Western blot experiments.

Source / Purification

Polyclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the residues within the amino-terminus of human N-cadherin and is purified by protein A and peptide affinity chromatography. Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the amino-terminal sequence of human α-E-catenin, residues near the carboxy terminus of human P-cadherin, residues surrounding 780 of human E-cadherin, residues surrounding Pro714 of human ß-catenin protein, and a synthetic peptide corresponding to a conserved region of human N-, R-, E- and P-Cadherin.

Background

Adherens junctions are dynamic structures that form cell-cell contacts and are important in development, differentiation, tissue integrity, morphology and cell polarity. They are composed of cadherins that are transmembrane proteins that bind cadherins on adjacent cells in a calcium dependent manner. On the cytoplasmic side of adherens junctions, the cadherins associate with β-catenin, γ-catenin and p120 catenin (δ). β-catenin and γ-catenin associate with α-catenin, which links the cadherin-catenin complex to the actin cytoskeleton (1,2). Recent studies indicate that cancer cells exhibit increased N-cadherin and diminished E-cadherin expression. E-cadherin is considered a suppressor of invasive cancer cell growth and this change in cadherin expression associated with cancer progression is termed the “cadherin switch”. β-catenin is one of the key downstream effectors in the Wnt signaling pathway and has been implicated in early embryonic development and tumorigenesis (3-5).

1. Wheelock, M.J. and Johnson, K.R. (2003) *Annu. Rev. Cell. Dev. Biol.* 19, 207-235.
2. Christofori, G. (2003) *EMBO J.* 22, 2318-2323.
3. Cadigan, K.M. and Nusse, R. (1997) *Genes Dev.* 11, 3286-3305.
4. Wodarz, A. and Nusse, R. (1998) *Annu. Rev. Cell Dev. Biol.* 14, 59-88.
5. Polakis, P. (1999) *Curr. Opin. Genet. Dev.* 9, 15-21.