abcam

Product datasheet

Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker ab51034

Recombinant RabMAb

6 Abreviews 16 References 13 Images

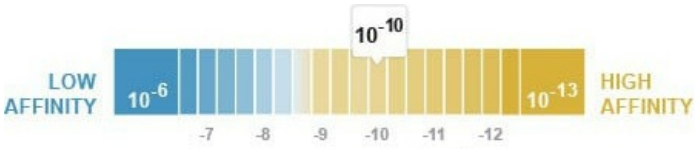
Overview

Product name	Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker
Description	Rabbit monoclonal [EPR1792Y] to pan Cadherin - Intercellular Junction Marker
Host species	Rabbit
Specificity	The immunogen used for this product shares 100% homology with N-cadherin, 100% homology with R-cadherin, 93% homology to K-cadherin, 93% homology to P-cadherin, 93% homology to E-cadherin, and 73% homology to VE-cadherin. Cross-reactivities with these proteins have not been confirmed experimentally.
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human pan Cadherin (C terminal). The exact sequence is proprietary. Database link: **P19022**
Positive control	WB: C6 whole cell lysate. Mouse heart tissue lysate. Human, mouse, and rat brain tissue lysates; ICC: MCF7 cells; IHC-P: Rat, mouse and human cardiac muscle tissue; human and rat colon and mouse testis tissue; IP: Rat heart lysate; Flow Cyt (intra): HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

Dissociation constant (K_D)	$K_D = 6.10 \times 10^{-10}$ M



Learn more about K_D

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 0.05% BSA, 40% Glycerol, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1792Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51034 in the following tested applications.

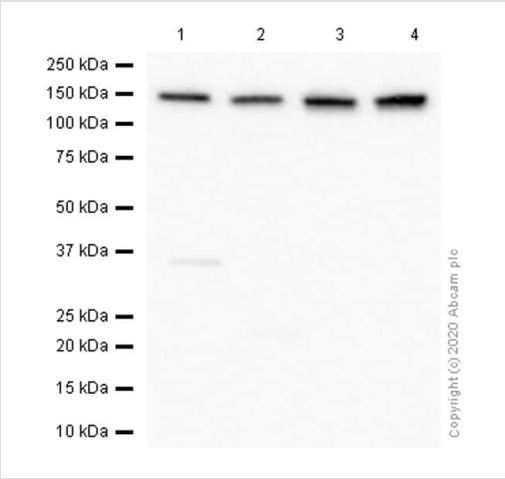
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20. For unpurified use at 1/30. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (1)	1/50000. Detects a band of approximately 140 kDa (predicted molecular weight: 100 kDa).
IP		1/20. **For unpurified use at 1/40.**
IHC-P	★★★★★ (2)	1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/100.**
ICC/IF	★★★★★ (2)	1/100 - 1/250.

Target

Relevance Cadherins are members of a multigene family of single chain glycoprotein receptors mediating calcium dependent cell-cell adhesion. They play an important role in the growth and development of cells via the mechanisms of control of tissue architecture and the maintenance of tissue integrity. Cadherins are expressed in a tissue specific manner and and are required for assembly of cells into solid tissue. Individual cadherin molecules are known to co-operate with each other to form a linear cell adhesion zipper. In adhesion junctions cadherins are bound to beta and gamma catenins which in turn bind to alpha catenin, an actin binding protein. Cadherins play an important part in tumor invasion and metastasis.

Images



Western blot - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

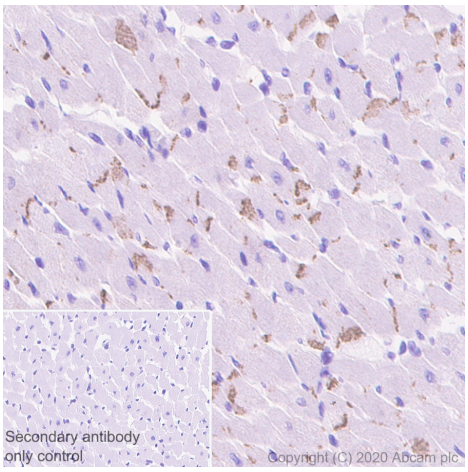
All lanes : Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034) at 1/50000 dilution (purified)

Lane 1 : C6 (Rat glial tumor glial cell) whole cell lysate
Lane 2 : Human brain lysate
Lane 3 : Mouse brain lysate
Lane 4 : Rat brain lysate

Lysates/proteins at 20 µg per lane.

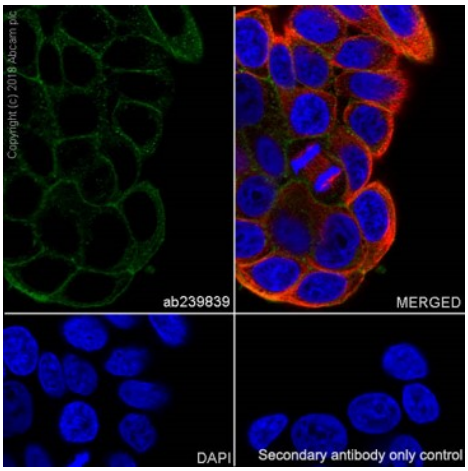
Secondary
All lanes : Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 100 kDa
Observed band size: 140 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat cardiac muscle tissue sections labeling pan Cadherin with purified ab51034 at 1/500 dilution (0.26 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

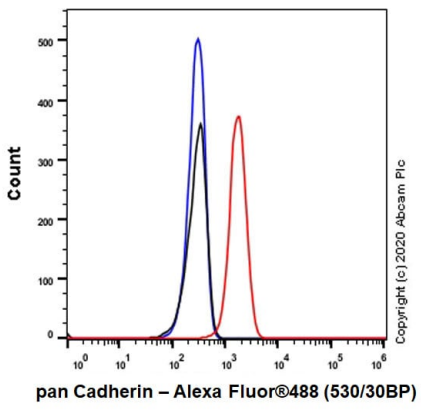


Immunocytochemistry/ Immunofluorescence - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunocytochemistry/Immunofluorescence analysis of MCF7 (human breast adenocarcinoma epithelial cells labeling pan Cadherin with purified ab51034 at 1/250. Cells were fixed with 4% Paraformaldehyde and permeabilised with 0.1% TritonX-100. **ab150077**, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain.

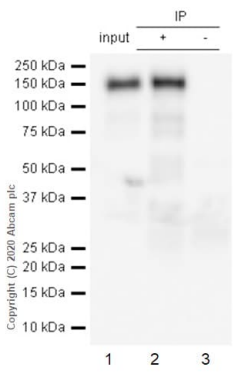
ab195889, Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 was used as counterstain antibody.

Confocal image showing membranous staining in MCF7 cells.



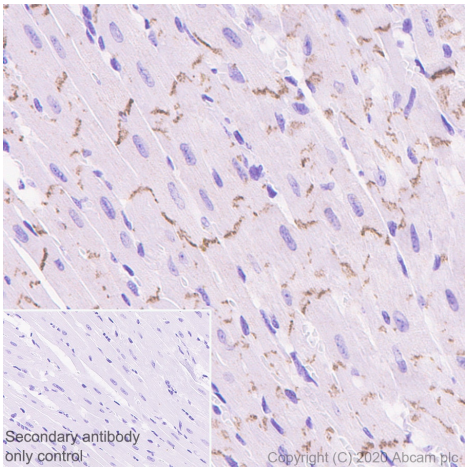
Flow Cytometry (Intracellular) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling pan Cadherin with purified ab51034 at 1/20 dilution (10µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



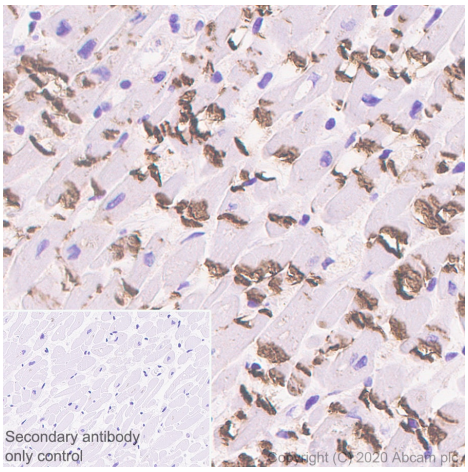
Immunoprecipitation - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Purified ab51034 at 1/20 dilution (0.6 µg) immunoprecipitating pan Cadherin in Rat heart lysate.
Lane 1 (input): Rat heart lysate 10 µg
Lane 2 (+): ab51034 + Rat heart lysate.
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab51034 in Rat heart lysate.
VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 140 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cardiac muscle tissue sections labeling pan Cadherin with purified ab51034 at 1/500 dilution (0.26 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



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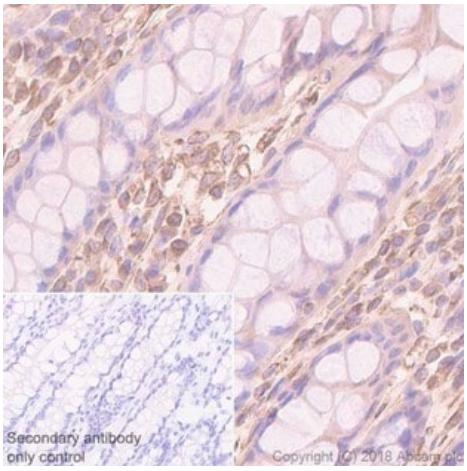
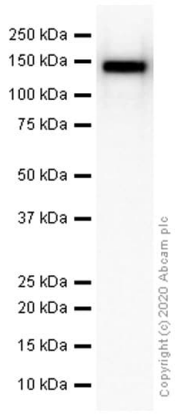
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cardiac muscle tissue sections labeling pan Cadherin with purified ab51034 at 1/500 dilution (0.26 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunohistochemical analysis of Paraffin-embedded human colon tissue sections labeling pan Cadherin with unpurified ab51034 at 1/100. Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated using **ab93684** (Tris/EDTA buffer, pH 9.0).

Positive staining on human colon.



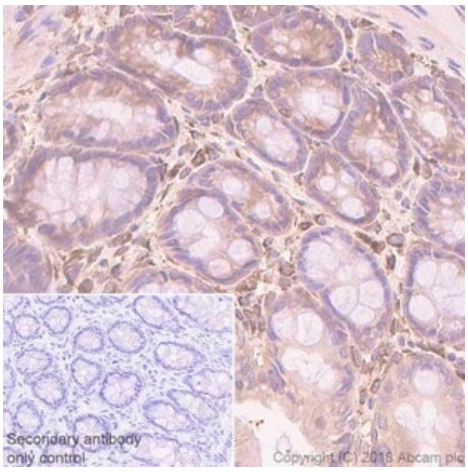
Western blot - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034) at 1/50000 dilution (purified) + Mouse heart lysate at 15 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

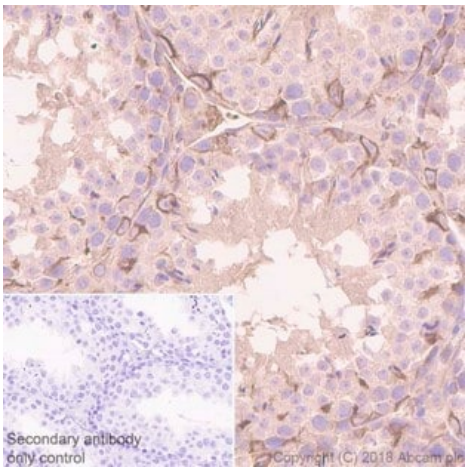
Predicted band size: 100 kDa
Observed band size: 140 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunohistochemical analysis of Paraffin-embedded rat colon tissue sections labeling pan Cadherin with unpurified ab51034 at 1/100. Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated using **ab93684** (Tris/EDTA buffer, pH 9.0).

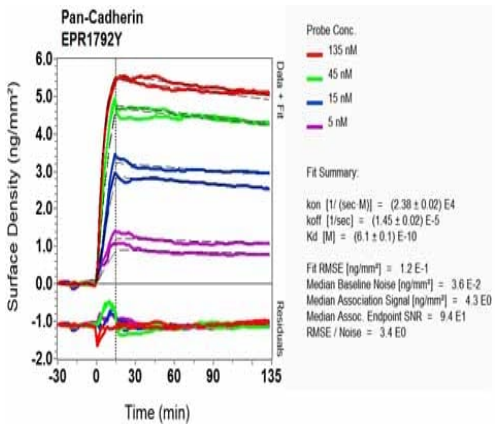
Positive staining on rat colon.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Immunohistochemical analysis of Paraffin-embedded mouse testis tissue sections labeling pan Cadherin with unpurified ab51034 at 1/100. Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Sections were counterstained with Hematoxylin. Antigen retrieval was heat mediated using **ab93684** (Tris/EDTA buffer, pH 9.0).

Positive staining on mouse testis.



OI-RD Scanning - Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

Anti-pan Cadherin antibody [EPR1792Y] - Intercellular Junction Marker (ab51034)

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