abcam

ab236441

Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	SP63
Purification technique	Affinity purification Protein A/G
Concentration	1.078 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

IHC-P

Tested

Species	Human

Dilution info	-
Notes	Perform heat mediated antigen retrieval with EDTA buffer pH 6.0 before commencing with IHC staining protocol. Primary antibody incubation for 30 minutes at room temperature.

Predicted

Species	Mouse, Rat, Chicken, Cow, Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Pig
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Chicken, Cow, Pig
Dilution info	-

Notes	-

Target data

See full target information CTNND1

Function	Key regulator of cell-cell adhesion that associates with and regulates the cell adhesion properties of both C-, E- and N-cadherins, being critical for their surface stability (PubMed:14610055, PubMed:20371349). Promotes localization and retention of DSG3 at cell-cell junctions, via its interaction with DSG3 (PubMed:18343367). Beside cell-cell adhesion, regulates gene transcription through several transcription factors including ZBTB33/Kaiso2 and GLIS2, and the activity of Rho family GTPases and downstream cytoskeletal dynamics (PubMed:10207085, PubMed:20371349). Implicated both in cell transformation by SRC and in ligand-induced receptor signaling through the EGF, PDGF, CSF-1 and ERBB2 receptors (PubMed:17344476).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab236441 is the carrier-free version of ab227638.
What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Delta 1 Catenin also known as CAS or δ-catenin is a member of the p120-catenin subfamily weighing around 122 kDa. It is predominantly expressed in the central nervous system where it localizes at the synapses. Apart from its neural distribution delta 1 Catenin also appears in epithelial tissues. This protein plays an important role in cell-cell adhesion by interacting with cadherins at the cytoplasmic side of the plasma membrane thereby facilitating the formation and maintenance of adherens junctions.
Biological function summary	Delta 1 Catenin participates in the regulation of synaptic stability and plasticity. As part of a protein complex it binds to the juxtamembrane domain of cadherins influencing actin cytoskeletal dynamics. Through this interaction delta 1 Catenin modulates signal transduction pathways that are essential for neuronal differentiation and synapse formation. In epithelial cells it is also involved in creating cell shapes and promoting tissue integrity.
Pathways	Delta 1 Catenin is essential in the Wnt signaling and Rho GTPase pathways. Within these pathways its interaction with E-cadherin and other catenins influences gene expression and cellular behaviors like migration and proliferation. The Wnt signaling pathway includes proteins such as β-catenin which works alongside delta 1 Catenin to regulate transcriptional activities pivotal for developmental processes and cancer progression.
Associated diseases and disorders	Delta 1 Catenin has associations with neurodegenerative diseases and certain cancers. In Alzheimer's disease alterations in delta 1 Catenin may disrupt synaptic connectivity contributing to cognitive decline. In cancer particularly prostate and colorectal its interaction with proteins like β-catenin potentially leads to changes in cell adhesion and metastasis. Such involvement makes delta 1 Catenin a significant target for therapeutic intervention.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

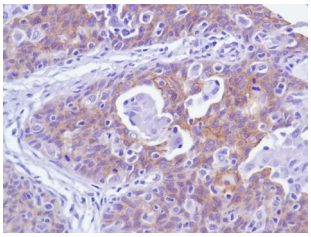
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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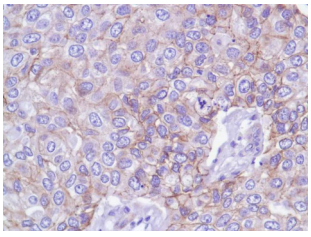
13 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

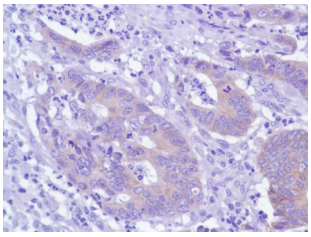
Formalin-fixed, paraffin-embedded human cervical squamous cell carcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

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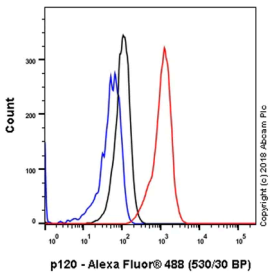
Formalin-fixed, paraffin-embedded human bladder transitional cell carcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

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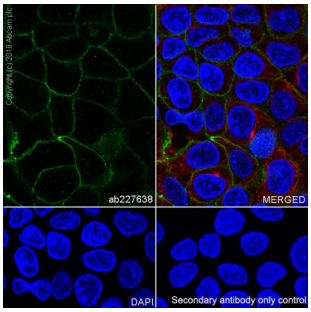
Formalin-fixed, paraffin-embedded human colon adenocarcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Flow Cytometry (Intracellular) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Flow Cytometry (Intracellular) staining using rabbit Anti-delta 1 Catenin/CAS antibody

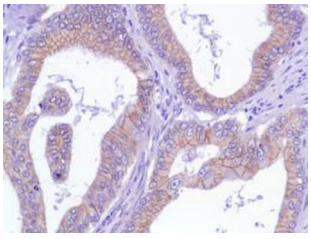
Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma epithelial cell) labeling delta 1 Catenin/CAS with purified ab227638 at (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Goat anti rabbit IgG (Alexa Fluor®488, ab150077) was used as a secondary antibody. Isotype control -Rabbit monoclonal IgG (ab172730) / Black. Unlableled control -Unlabelled cells / blue.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab227638).



Immunocytochemistry/ Immunofluorescence - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-delta 1 Catenin/CAS antibody

Immunocytochemistry/ Immunofluorescence analysis of A431 (human epidermoid carcinoma epithelial cell) cells labeling delta 1 Catenin/CAS with purified ab227638. Cells were fixed in 100% Methanol. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab227638).

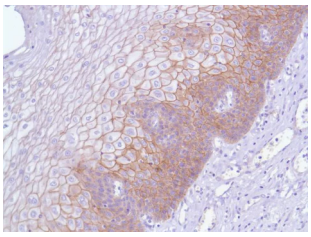


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

Formalin-fixed, paraffin-embedded human stomach adenocarcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.

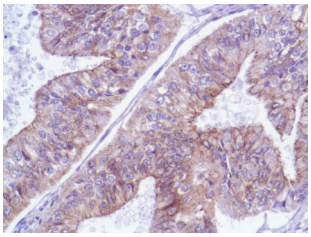
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

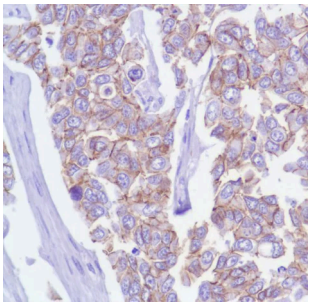
Formalin-fixed, paraffin-embedded human esophagus tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

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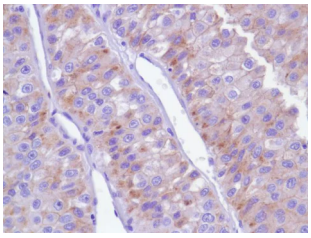
Formalin-fixed, paraffin-embedded human endometrium adenocarcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

Formalin-fixed, paraffin-embedded human breast carcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA and sodium azide (ab227638).

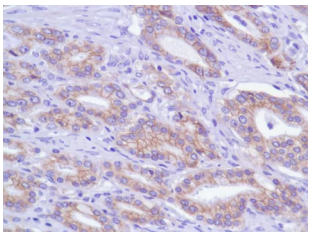


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

Formalin-fixed, paraffin-embedded human hepatocellular carcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.

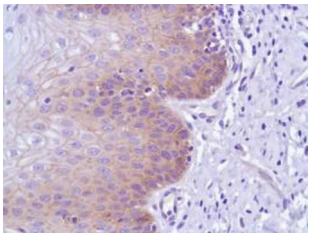
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

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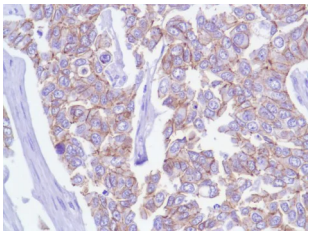
Formalin-fixed, paraffin-embedded human prostate adenocarcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

Formalin-fixed, paraffin-embedded human cervix tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-delta 1 Catenin/CAS antibody [SP63] - BSA and Azide free (ab236441)

Delta 1 Catenin/CAS Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-delta 1 Catenin/CAS antibody

Formalin-fixed, paraffin-embedded human breast ductal cell carcinoma tissue stained for delta 1 Catenin/CAS using ab227638 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab227638).

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