abcam

ab217173

Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EP1628Y
Purification technique	Affinity purification Protein A
Dissociation constant	4.6 x 10^{-10} M
Concentration	1.038 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-Fr

Tested

Species	Mouse

Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	-
Notes	ab199376- Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Species	Human
Dilution info	-
Notes	ab199376- Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Rat
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information KRT8

Function	Required for the formation of KRT8/KRT18 filaments that are involved in ARHGEF40-mediated actin stress fiber formation and tensional force-induced stress fiber formation and reinforcement (PubMed:26823019). Together with KRT19, helps to link the contractile apparatus to dystrophin at the costameres of striated muscle.

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

ab217173 is the carrier-free version of ab53280.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

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.

Species reactivity

Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

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.

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

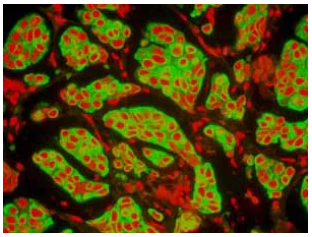
We do not recommend this combination. It is not covered by our product promise.

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.

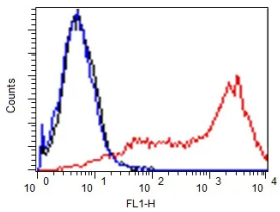
19 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

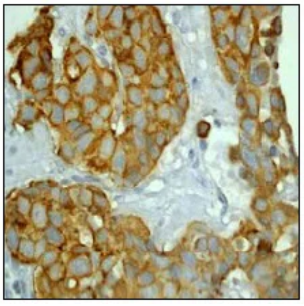
This IHC data was generated using the same anti-Cytokeratin 8 antibody clone, EP1628Y, in a different buffer formulation (cat# ab53280).
Fluorescent immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ab53280. Green-CK8 red-PI



Flow Cytometry (Intracellular) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 8 antibody

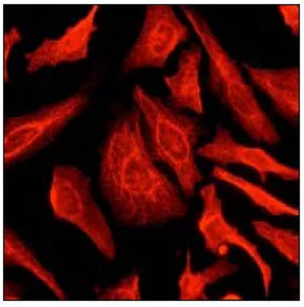
Overlay histogram showing HeLa cells stained with unpurified ab53280 (red line). The cells were fixed with 2% PFA (room temperature, 30 min) and then permeabilized with 1% FACS permeabilizing solution for 30 min. The cells were then incubated in 3% FBS in 1X PBS followed by the antibody (ab53280, 1/20 dilution) for 1 hour at room temperature. The cells were then incubated for 30 min at room temperature with the secondary antibody. An isotype control antibody (black line) was used and an unlabelled sample (blue line) was also used as a control. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

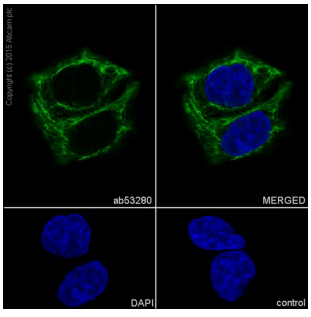
Unpurified ab53280 (1:250) staining human Cyotkeratin 8 in human breast adenocarcinoma tissue by immunohistochemistry using paraffin embedded tissue.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 8 antibody

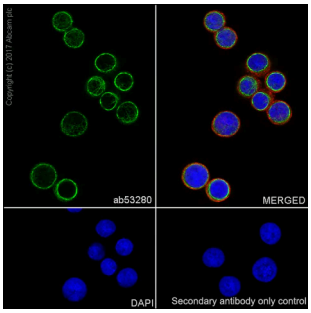
Immunofluorescent staining of HeLa cells using unpurified ab53280 (1:100).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 8 antibody

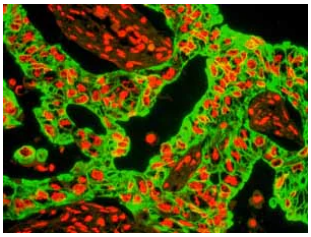
Immunocytochemistry/Immunofluorescence analysis of HeLa (human cervix adenocarcinoma) labelling Cytokeratin 8 with purified ab53280 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilised by 0.1% tritonX-100. An Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody (ab150077). Nuclei counterstained with DAPI (blue).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 8 antibody

Immunocytochemistry/ Immunofluorescence analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labeling Cytokeratin 9 with Purified ab53280 at 1:500 dilution. Cells were fixed in 100% Methanol and permeabilized with None. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor ® 594) 1:200 (2.5 µg/ml). ab150077 Goat anti rabbit IgG(Alexa Fluor ® 488) was used as the secondary antibody at 1:1000 dilution. DAPI 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, glycerol, and sodium azide (ab53280).

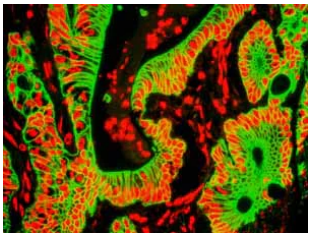


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Fluorescent immunohistochemical analysis of paraffin-embedded human endometrial carcinoma tissue using unpurified ab53280. Green-CK8 red-PI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).

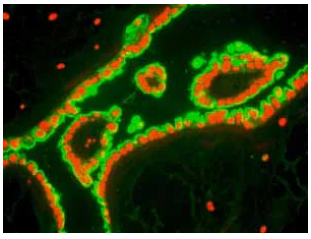


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Fluorescent immunohistochemical analysis of paraffin-embedded human colonic adenocarcinoma tissue using unpurified ab53280. Green-CK8 red-PI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).

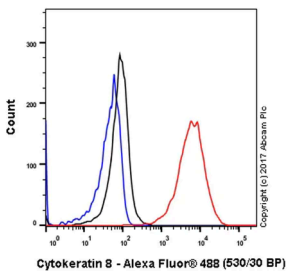


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Fluorescent immunohistochemical analysis of paraffin-embedded human ovarian carcinoma tissue using unpurified ab53280. Green-CK8 red-PI.

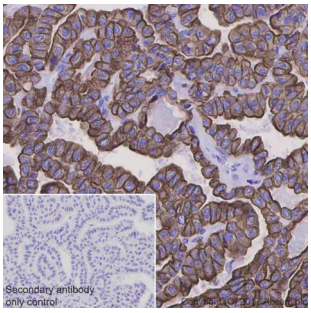
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Flow Cytometry (Intracellular) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 8 antibody

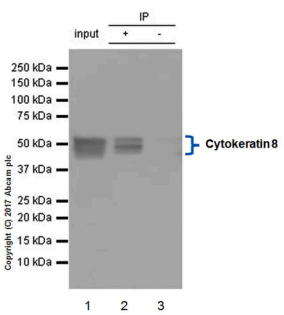
Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Cytokeratin 8 with purified ab53280 at 1/20 dilution (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue sections labeling Cytokeratin 8 with Purified ab53280 at 1:250 dilution. Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunoprecipitation - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

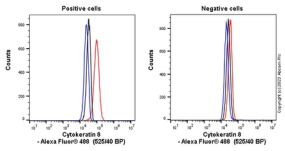
ab53280 (purified) at 1:20 dilution (0.2µg) immunoprecipitating Cytokeratin 8 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate, 10µg
Lane 2 (+): ab53280 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab53280 in HeLa whole cell lysate

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).

All lanes:
Immunoprecipitation - Anti-Cytokeratin 8 antibody [EP1628Y] - Cytoskeleton Marker (ab53280)

Predicted band size: 53 kDa



Flow Cytometry (Intracellular) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 8 antibody

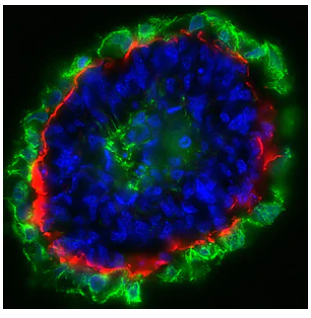
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).

Flow cytometry overlay histogram showing left NIH3T3 positive cells and right negative Raw264.7 stained with ab53280 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab53280) (1x 106 in 100µl at 0.2µg/ml (1/11500)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Cytokeratin 8 antibody

This IHC data was generated using the same anti-Cytokeratin 8 antibody clone, EP1628Y, in a different buffer formulation (cat# ab53280).
Image: Courtesy of Dr. Shaohua Li, UMDNJ-Robert Wood Johnson Medical School

This image is courtesy of Dr. Shaohua Li

Sample: mouse embryonic stem cell-differentiated embryoid bodies (EBs)

Preparation:

Fix in 3% PFA in PBS for 30 min at RT Incubate in 7.5% sucrose-PBS for 3h at RT Incubate in 15% sucrose-PBS at 4 degree Celsius overnight Embed the EBs in tissue-Tek OCT compound Cut frozen sections to 4-20 µm thickness

Primary antibody 1: Rabbit anti cytokeratin 8 (ab53280), 1:100

Primary antibody 2: Rat anti-perlecan, 1:100
Secondary antibody 1: Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488) pre-adsorbed (ab150081), 1:200

Secondary antibody 2: Goat polyclonal Secondary Antibody to Rat IgG - H&L (Cy5®) pre-adsorbed (ab150081), 1:200
Nuclei were counterstained with DAPI.

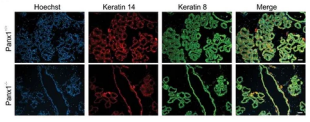


Image from Stewart M.K. et al PLoS One. 2016 Apr 21;11(4):e0154162. doi: 10.1371/journal.pone.0154162. eCollection 2016.

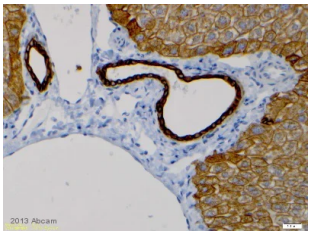
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Panx1$^{-/-}$ mice have normal mammary gland epithelial differentiation at lactation
Immunofluorescent analysis of luminal epithelial marker keratin 8 (green) and myoepithelial marker keratin14 (red) revealed a similar staining pattern in Panx1$^{-/-}$ mice compared to control mice during lactation. Paraffin-embedded tissue samples.

Hoescht (blue) denotes nuclei. N = 6. Scale bars = 50 um.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).

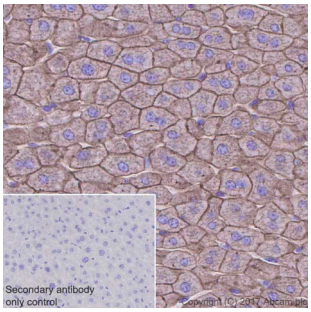


This image is courtesy of an anonymous customer review

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

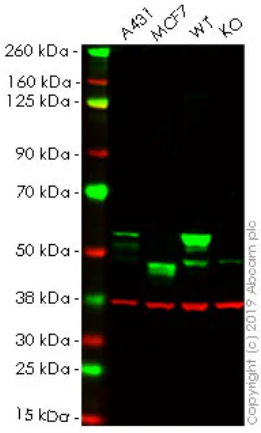
Cytokeratin 8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 8 antibody

Unpurified ab53280 staining Cytokeratin 8 in Mouse liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formalin and blocked with 10% serum for 20 minutes at 23°C; antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/75 in TBS + 1% BSA) for 1 hour at 23°C. A Biotin-conjugated Goat anti-rabbit IgG polyclonal (1/500) was used as the secondary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse liver tissue sections labeling Cytokeratin 8 with Purified ab53280 at 1:250 dilution. Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab53280).



Western blot - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

Cytokeratin 8 Western blot staining using rabbit Anti-Cytokeratin 8 antibody

This data was developed using the same antibody clone in a different buffer formulation (ab53280).
Lanes 1 - 4: Merged signal (red and green). Green - ab53280 observed at 55 kDa. Red - loading control, ab8245 observed at 37 kDa.

ab53280 was shown to react with Cytokeratin 8 in wild-type HeLa cells. Loss of signal was observed when knockout cell line ab255400 (knockout cell lysate ab263785) was used. Wild-type and Cytokeratin 8 knockout samples were subjected to SDS-PAGE. ab53280 and Anti-GAPDH antibody [6C5] - Loading Control (ab8245) were incubated overnight at 4°C at 1 in 10000 (For unpurified use at 1/25,000 - 1/50,000) dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cytokeratin 8 antibody [EP1628Y] - Cytoskeleton Marker (ab53280) at 1/10000 dilution

Lane 1:
A431 cell lysate at 20 µg

Lane 2:
MCF7 cell lysate at 20 µg

Lane 3:
Wild-type HeLa cell lysate at 20 µg

Lane 4:
Western blot - Human KRT8 (Cytokeratin 8) knockout HeLa cell lysate (ab263785) at 20 µg

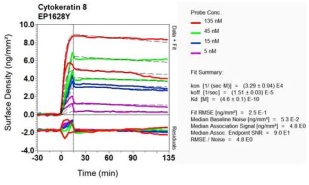
Secondary

All lanes:
Western blot - Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (ab216773) at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 53 kDa

Observed band size: 37 kDa, 52 kDa



OI-RD Scanning - Anti-Cytokeratin 8 antibody [EP1628Y] - BSA and Azide free (ab217173)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.