abcam

Product datasheet

Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free ab195872



リコンピナント

RabMAb

9 References 画像数 19

製品の概要

製品名 Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free

製品の詳細 Rabbit monoclonal [EP1580Y] to Cytokeratin 19 - BSA and Azide free

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), mIHC, ICC/IF, IHC-P, WB

適用なし: №

種交差性 交差種: Mouse, Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

WB: HepG2 and NIH/3T3 cell lysates. IHC-P: Human skin, breast carcinoma, kidney carcinoma, endometrial carcinoma and gastric adenocarcinoma tissues. ICC/IF: HepG2 and MCF-7 cells.

Flow Cyt (intra): MCF-7 and HeLa cells. IHC-Fr: Mouse salivary gland tissue. mIHC: Human lung

cancer, liver and pancreas tissues.

特記事項 ab195872 is the carrier-free version of <u>ab52625</u>.

Our <u>carrier-free</u> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for

increased conjugation efficiency.

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 <u>conjugation kits</u> 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.

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.

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.

1

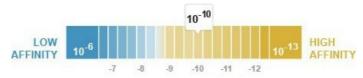
Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**[®] **patents**.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C. Do Not Freeze.

解離定数(K_D値) $K_D = 3.70 \times 10^{-10} M$



Learn more about K_D

バッファー pH: 7.20

Constituent: PBS

キャリア・フリー はい

精製度 Protein A purified

ポリモノクローナル **ウローン名** EP1580Y

アイソタイプ lgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab195872の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
mIHC		1/8000.
ICC/IF		Use at an assay dependent concentration. This product gave a positive signal in MCF7 (-ve: SH-SY5Y) fixed with 100% methanol (5 min).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols.
WB		Use at an assay dependent concentration. Detects a band of approximately 44 kDa (predicted molecular weight: 44 kDa).

追加情報

Is unsuitable for IP.

機能

Involved in the organization of myofibers. Together with KRT8, helps to link the contractile apparatus to dystrophin at the costameres of striated muscle.

組織特異性

Expressed in a defined zone of basal keratinocytes in the deep outer root sheath of hair follicles. Also observed in sweat gland and mammary gland ductal and secretory cells, bile ducts, gastrointestinal tract, bladder urothelium, oral epithelia, esophagus, ectocervical epithelium (at protein level). Expressed in epidermal basal cells, in nipple epidermis and a defined region of the hair follicle. Also seen in a subset of vascular wall cells in both the veins and artery of human umbilical cord, and in umbilical cord vascular smooth muscle. Observed in muscle fibers accumulating in the costameres of myoplasm at the sarcolemma in structures that contain dystrophin and spectrin.

配列類似性

Belongs to the intermediate filament family.

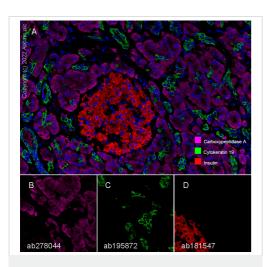
発生段階

Present in hair follicles at all stages of development.

ドメイン

This keratin differs from all other IF proteins in lacking the C-terminal tail domain.

画像



Multiplex immunohistochemistry - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

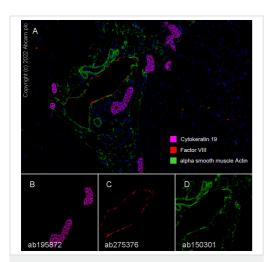
Fluorescence multiplex immunohistochemical analysis of the human pancreas (Formalin/PFA-fixed paraffin-embedded sections).

Panel A: merged staining of anti-Carboxypeptidase A (<u>ab278044</u>, magenta; Opal[™]690), anti-Cytokeratin 19 (ab195872, green; Opal[™]520) and anti-Insulin (<u>ab181547</u>, red; Opal[™]570) on human pancreas. Panel B: anti-Carboxypeptidase A stained on acinar cells. Panel C: anti-Cytokeratin 19 stained on centroacinar cells and ducts. Panel D: anti-Insulin stained on beta cells. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

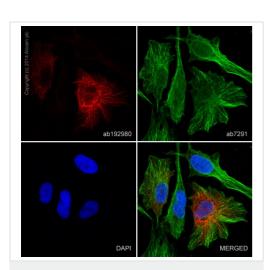
The section was incubated in three rounds of staining: in the order of <u>ab278044</u> at 1/4000 dilution (0.135 μ g/ml), ab195872 at 1/8000 dilution (0.127 μ g/ml), and <u>ab181547</u> at 1/20000 dilution (0.053 μ g/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument with an Opal[™] 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. DAPI (blue) was used as a nuclear counter stain.



Multiplex immunohistochemistry - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

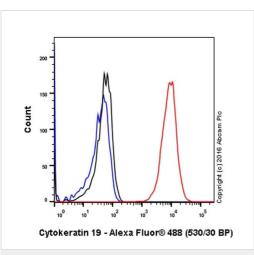
Fluorescence multiplex immunohistochemical analysis of human liver tissue (formalin-fixed paraffin-embedded section). Panel A shows merged staining of ab195872 anti-Cytokeratin 19 stained on branch of bile ducts (magenta; Opal™690) at 1:8000 (0.127 μg/ml) [Panel B], ab275376 anti-Factor VIII stained on endothelial cells (red; Opal[™]570) at 1:1000 (0.457 μg/ml) [Panel C], and **ab150301** anti-alpha smooth muscle Actin stained on smooth muscles (green; Opal™520) at 1:200 (0.14 µg/ml) [Panel C] on human liver. DAPI was used as a nuclear counter stain. Followed by Opal Polymer HRP Ms + Rb secondary. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. The section was incubated in three rounds of staining: in the order of ab195872 for 30 mins, ab275376 for 30 mins and ab150301 for 10 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins was used.

Clone EP1580Y (ab195872) has been successfully conjugated by Abcam. This image was generated using Anti-Cytokeratin 19 antibody [EP1580Y] (Alexa Fluor® 647). Please refer to ab192980 for protocol details.

<u>ab192980</u> staining Cytokeratin 19 in HeLa cells. The cells were fixed with 100% methanol (5 min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Triton X-100 for 1hr. The cells were then incubated with <u>ab192980</u> at a working dilution of 1 in 50 (shown in red) and <u>ab7291</u> (Mouse monoclonal [DM1A] to alpha Tubulin) at 1μg/ml overnight at +4°C, followed by a further incubation at room temperature for 1hr with an AlexaFluor[®] 488 Goat anti-mouse $\lg G$ (H&L - preadsorbed) secondary (<u>ab150117</u>) at 2 μg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.

This product gave a positive signal in 4% formaldehyde (10 min) fixed HeLa cells under the same testing conditions

Image was taken with a Confocal microscope (Leica microsystems, TCS SP8).



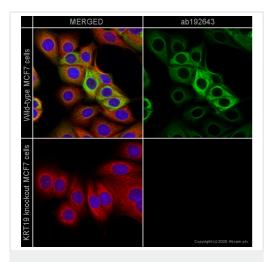
Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

ab52625 staining Cytokeratin 19 in the human cell line MCF-7 (human breast carcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilized with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/80. A goat anti rabbit IgG (Alexa Fluorr[®] 488) at a dilution of 1/2000 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

Unlabelled 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 (ab52625).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

Clone EP1580Y (ab195872) has been successfully conjugated by Abcam. This image was generated using Anti-Cytokeratin 19 antibody [EP1580Y] (Alexa Fluor® 488). Please refer to **ab192643** for protocol details.

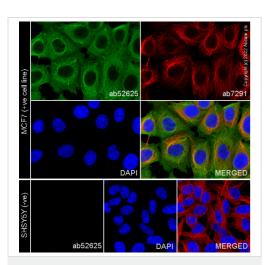
ab192643 staining Cytokeratin 19 in wild-type MCF7 cells (top panel) and KRT19 knockout MCF7 cells (bottom panel). The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab192643 at 1/500 dilution (shown in green) and ab195884 (Rat monoclonal to Tubulin - Alexa Fluor® 647) at 1/100 dilution (shown in red) overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



This data was developed using <u>ab52625</u>, the same antibody clone in a different buffer formulation. Different batches of <u>ab52625</u> were tested on HepG2 (Human hepatocellular carcinoma epithelial cell) lysate at $0.2 \, \mu g/ml$. 15 $\, \mu g$ of lysate was loaded in each lane. Bands observed at 40 kDa.

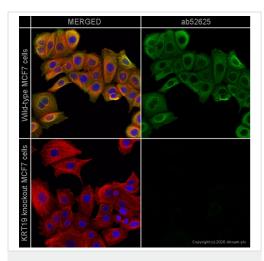
Western blot - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)



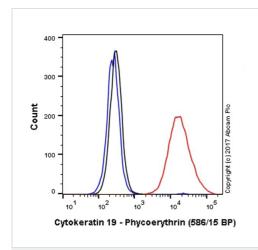
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

ab52625 staining KRT19 in MCF7 cells, with negative expression in SHSY5Y cells. The cells were fixed with 100% methanol (5 min), permeabilised with 0.1% Triton x-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab52625 at 2 µg/ml and ab7291, Mouse monoclonal [DM1A] to alpha Tubulin at 0.5 µg/ml. Cells were then incubated with ab150081, Goat polyclonal Secondary Antibody to Rabbit IgG -H&L (Alexa Fluor[®] 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150119, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 647), pre-adsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue). Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown. This product also work with 4% formaldehyde (10 min) fixation under the same testing conditions.

This data was developed using the same antibody clone in a different buffer formulation (<u>ab52625</u>).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

This data was developed using the same antibody clone in a different buffer formulation (ab52625).

ab52625 staining Cytokeratin 19 in wild-type MCF7 cells (top panel) and KRT19 knockout MCF7 cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab52625 at 1/100 dilution and ab7291 (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit lgG (Alexa Fluor[®] 488) (ab150081) at 2 μg/ml (shown in green) and a goat secondary antibody to mouse lgG (Alexa Fluor[®] 594) (ab150120) at 2 μg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

Clone EP1580Y (ab195872) has been successfully conjugated by Abcam. This image was generated using Anti-Cytokeratin 19 antibody [EP1580Y] (PE). Please refer to <u>ab224981</u> for protocol details.

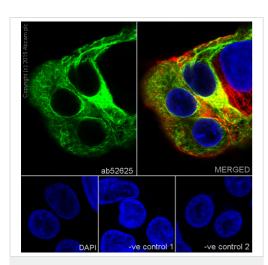
Overlay histogram showing HeLa cells stained with <u>ab224981</u> (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS / 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (<u>ab224981</u>, 1/1000 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Phycoerythrin (<u>ab209478</u>) used at the same concentration and conditions as the primary antibody.

Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW

Yellow/Green laser (561nm) and 586/15 bandpass filter.

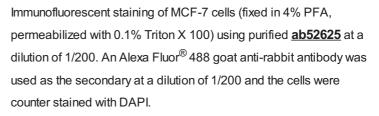


Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

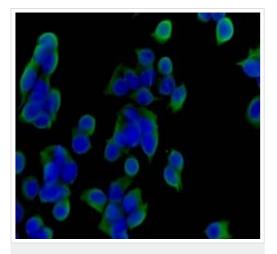
Immunocytochemistry/Immunofluorescence analysis of HepG2 (human liver hepatocellular carcinoma cell line) cells labelling Cytokeratin 19 (green) with purified ab52625 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, Alexa Fluor[®] 488-conjugated goat antirabbit lgG (1/1000) was used as the secondary antibody. Cells were counter-stained with ab7291, anti-Tubulin (mouse mAb) at 1/1000 followed by ab150120 AlexaFluor[®]594 goat anti-mouse secondary (1/1000). Nuclei were counterstained with DAPI (blue).

For negative control 1, rabbit primary antibody and anti-mouse secondary antibody (<u>ab150120</u>) were used. For negative control 2, <u>ab7291</u> (mouse primary antibody) was used followed by anti-rabbit secondary antibody (<u>ab150077</u>).

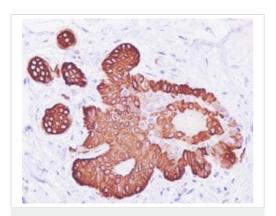
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).



This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

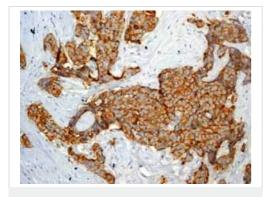


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytokeratin 19 antibody

[EP1580Y] - BSA and Azide free (ab195872)

Immunohistochemical staining of paraffin-embedded human skin with purified ab52625 at a dilution of 1/400. A pre-diluted HRP polymer for rabbit/mouse IgG was used as the secondary antibody and the sample was counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

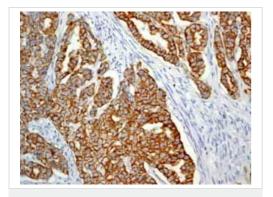
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytokeratin 19 antibody
[EP1580Y] - BSA and Azide free (ab195872)

Unpurified <u>ab52625</u> showing positive staining in Breast carcinoma tissue.

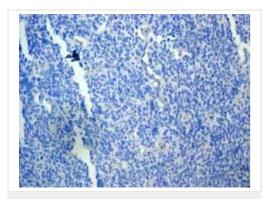
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab52625</u>).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytokeratin 19 antibody
[EP1580Y] - BSA and Azide free (ab195872)

Unpurified <u>ab52625</u> showing positive staining in Endometrial carcinoma tissue.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab52625</u>).

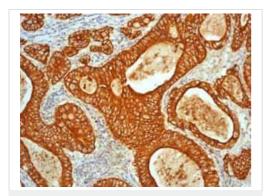


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytokeratin 19 antibody

[EP1580Y] - BSA and Azide free (ab195872)

Unpurified ab52625 showing negative staining in Glioma tissue.

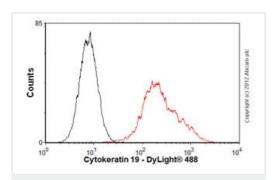
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Cytokeratin 19 antibody
[EP1580Y] - BSA and Azide free (ab195872)

Unpurified <u>ab52625</u> showing positive staining in Gastric adenocarcinoma tissue.

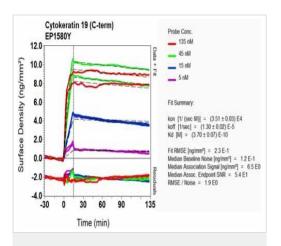
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (<u>ab52625</u>).



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

Overlay histogram showing HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained with unpurified <u>ab52625</u> (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (<u>ab52625</u>, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight[®] 488 goat anti-rabbit IgG (H+L) (<u>ab96899</u>) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).

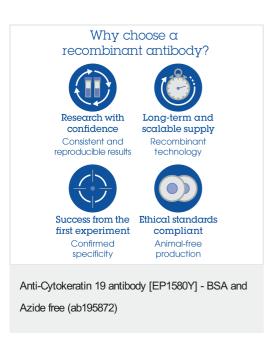


OI-RD Scanning - Anti-Cytokeratin 19 antibody [EP1580Y] - BSA and Azide free (ab195872)

Equilibrium disassociation constant (K_D) Learn more about K_D

Click here to learn more about K_D

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab52625).



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