abcam

Product datasheet

Anti-CD68 antibody [EPR20545] ab213363

リコンビナント RabMAb

4 Abreviews 78 References 画像数 16

製品の概要

製品名	Anti-CD68 antibody [EPR20545]
製品の詳細	Rabbit monoclonal [EPR20545] to CD68
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P, ICC/IF, mIHC
種交差性	**交差種:** Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Human tonsil, fetal liver and fetal spleen lysates; THP-1 and U937 whole cell lysates. IHC-P: Human tonsil and cervix carcinoma. mIHC: Human liver tissue, human duodenum tissue, human colon tissue. ICC/IF: THP-1 and U937 cells.
特記事項	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**.

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR20545

アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab213363の使用に適用されます

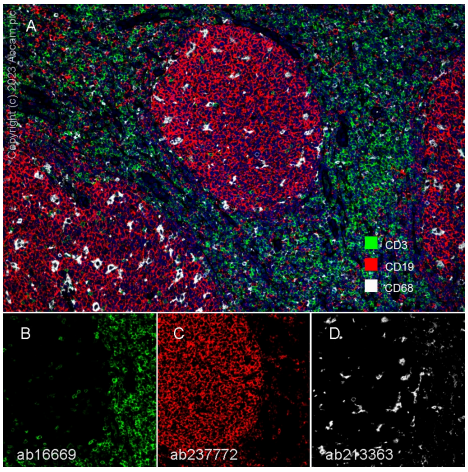
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB		1/1000. Detects a band of approximately 110 kDa (predicted molecular weight: 37 kDa).
IHC-P	★★★★★ (2)	1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	1/100.
mIHC		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

ターゲット情報

機能	Could play a role in phagocytic activities of tissue macrophages, both in intracellular lysosomal metabolism and extracellular cell-cell and cell-pathogen interactions. Binds to tissue- and organ-specific lectins or selectins, allowing homing of macrophage subsets to particular sites. Rapid recirculation of CD68 from endosomes and lysosomes to the plasma membrane may allow macrophages to crawl over selectin-bearing substrates or other cells.
組織特異性	Highly expressed by blood monocytes and tissue macrophages. Also expressed in lymphocytes, fibroblasts and endothelial cells. Expressed in many tumor cell lines which could allow them to attach to selectins on vascular endothelium, facilitating their dissemination to secondary sites.
配列類似性	Belongs to the LAMP family.
翻訳後修飾	N- and O-glycosylated.
細胞内局在	Cell membrane and Endosome membrane. Lysosome membrane.

画像



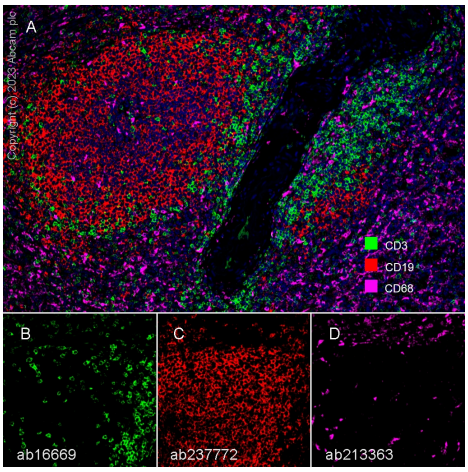
Multiplex immunohistochemistry - Anti-CD68 antibody [EPR20545] (ab213363)

Panel A: merged staining of anti-CD68 (gray; Opal™690), anti-CD3 (green; Opal™520) and anti-CD19 (red; Opal™570) on Formalin/PFA-fixed paraffin-embedded sections of human tonsil. Secondary antibody was Opal Polymer HRP Ms + Rb, and counterstaining was with DAPI.

Panel B: anti-CD3 stained on T cells with **ab16669** at 1/500 dilution
Panel C: anti-CD19 stained on B cells with **ab237772** at 1/5000 dilution
Panel D: anti-CD68 stained on macrophages with ab213363 1/500 dilution

The section was incubated in three rounds of staining: in the order of ab213363 and **ab16669** for 30 mins, then **ab237772** 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.

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.



Multiplex immunohistochemistry - Anti-CD68 antibody [EPR20545] (ab213363)

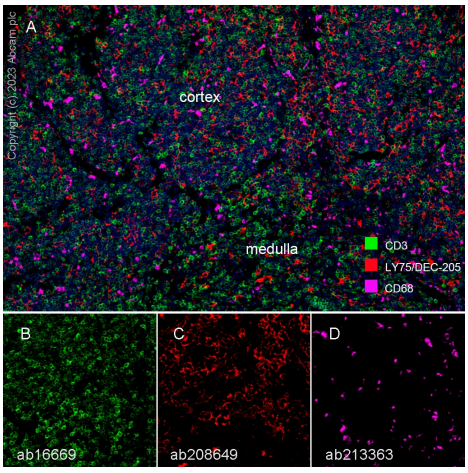
Panel A: merged staining of anti-CD68 (magenta; Opal™690), anti-CD3 (green; Opal™520) and anti-CD19 (red; Opal™570) on Formalin/PFA-fixed paraffin-embedded sections of human spleen. Secondary antibody was Opal Polymer HRP Ms + Rb, and couterstaining was with DAPI.

Panel B: anti-CD3 stained on T cells with **ab16669** at 1/500 dilution
Panel C: anti-CD19 stained on B cells with **ab237772** at 1/5000 dilution
Panel D: anti-CD68 stained on macrophages with ab213363 1/500 dilution

The section was incubated in three rounds of staining: in the order of ab213363 and **ab16669** for 30 mins, then **ab237772** 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.

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.



Multiplex Imaging - Anti-CD68 antibody [EPR20545] (ab213363)

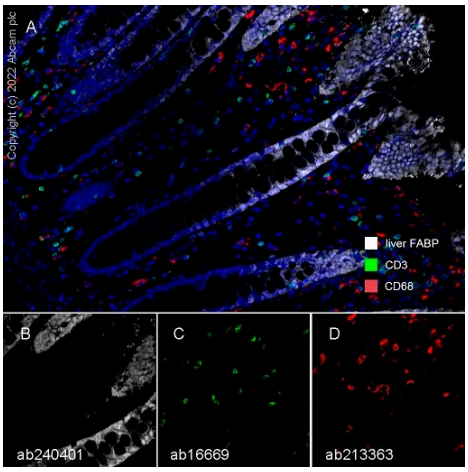
Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded Human thymus tissue labeling CD3 with **ab16669** at 1/500 dilution, LY75/DEC-205 with **ab208649** at 1/15000, and CD68 with ab213363 at 1/500 dilution.

Panel A: merged staining of anti-CD68 (magenta; Opal™690), anti-CD3 (green; Opal™520) and anti-LY75/DEC-205 (red; Opal™570) on human thymus.
Panel B: anti-CD3 stained on T cells.
Panel C: anti-LY75/DEC-205 stained on thymic cortical epithelium and dendritic cells.
Panel D: anti-CD68 stained on macrophages.

Sections were treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins before antibody incubation. The section was incubated in three rounds of staining: in the order of ab213363, **ab16669**, and **ab208649** for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

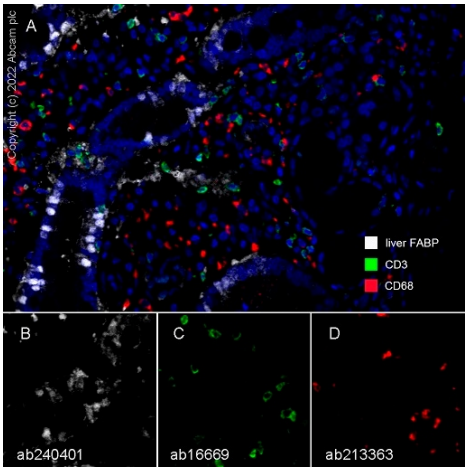
DAPI was used as a nuclear counterstain.

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.



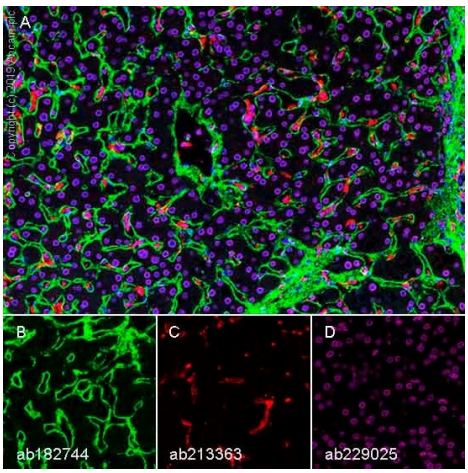
Multiplex immunohistochemistry - Anti-CD68 antibody [EPR20545] (ab213363)

Fluorescence multiplex immunohistochemical analysis of the human colon (Formalin/PFA-fixed paraffin-embedded sections). Panel A: merged staining of anti-liver FABP (**ab240401**, gray; Opal™690), anti-CD3 (**ab16669**, green; Opal™520) and anti-CD68 (ab213363, red; Opal™570) on human colon. Panel B: anti-liver FABP stained on enterocytes. Panel C: anti-CD3 stained on T cells. Panel D: anti-CD68 stained on macrophages. Opal Polymer HRP Ms + Rb was used as a secondary antibody. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. The section was incubated in three rounds of staining: in the order of **ab240401** (1/8000 dilution), **ab16669** (1/150 dilution), and ab213363 (1/500 dilution) for 30 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. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Leica SP8 confocal microscope.



Multiplex immunohistochemistry - Anti-CD68 antibody [EPR20545] (ab213363)

Fluorescence multiplex immunohistochemical analysis of the human duodenum (Formalin/PFA-fixed paraffin-embedded sections). Panel A: merged staining of anti-liver FABP (**ab240401**, gray; Opal™690), anti-CD3 (**ab16669**, green; Opal™520) and anti-CD68 (ab213363, red; Opal™570) on human duodenum. Panel B: anti-liver FABP stained on enterocytes. Panel C: anti-CD3 stained on T cells. Panel D: anti-CD68 stained on macrophages. Opal Polymer HRP Ms + Rb was used as a secondary antibody. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. The section was incubated in three rounds of staining: in the order of **ab240401** (1/8000 dilution), **ab16669** (1/150 dilution), and ab213363 (1/500 dilution) for 30 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. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Leica SP8 confocal microscope.



Multiplex immunohistochemistry - Anti-CD68 antibody [EPR20545] (ab213363)

Multiplex immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human liver tissue.

Panel A: Merged staining of Collagen VI (**ab182744**; green), anti-CD68 (ab213363; red) and anti-Lamin B1 (**ab229025**; magenta).

Panel B: Anti-Collagen VI (green) stained on extracellular matrix.

Panel C: Anti-CD68 (red) stained on Kupffer cells.

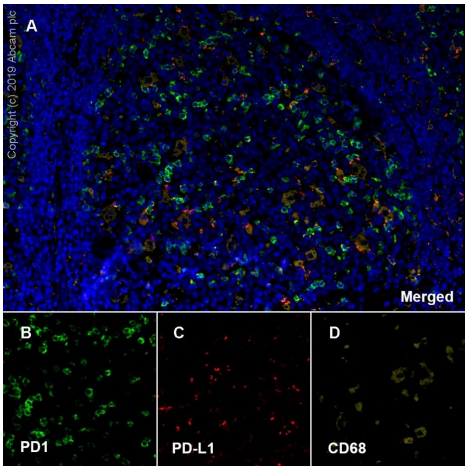
Panel D: Anti-Lamin B1 (magenta) stained on nuclear envelope.

Key protocol steps: The section was incubated in three rounds of staining with **ab182744** (1/1000 dilution), ab213363 (1/1000 dilution) and **ab229025** (1/4000 dilution) for 30 mins at room temperature. Each round was followed by tyramide signal amplification with the appropriate fluorophore. Heat mediated antigen retrieval was used (Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins after every round of antibody/fluorophore staining.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

DAPI was used as a nuclear counter stain. A ready-to-use anti-Rabbit and Mouse Polymer HRP was used as a secondary.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human spleen tissue labelling PDI with **ab243644** at 1.02 µg/mL (B), PD-L 1 with **ab213524** at 1/100 dilution (C) and CD68 with ab213363 at 1/300 dilution (D). Anti-Rabbit and Mouse Polymer HRP was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20mins. Heat mediated antigen retrieval (Leica ER2, PH9.0, 20 minutes) was used in between rounds of tyramide signal amplification to remove the antibodies from the previous round, to avoid any cross-reactivity.

Panel A: merged staining of anti- PD1 (green, Opal™520), anti-PD-L1 (red, Opal™570) and anti- CD68 (yellow, Opal™690).

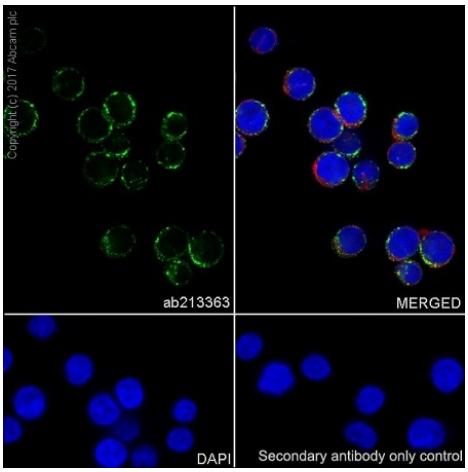
Panel B: Anti- PD1 stained on antigen-stimulated T cells.

Panel C: anti- PD-L1 stained on cells involved in T cell inhibition

Panel D: anti-CD68 stained on macrophages.

The section was incubated in three rounds of staining: in the order of **ab243644**, ab213363 and **ab213524** 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.

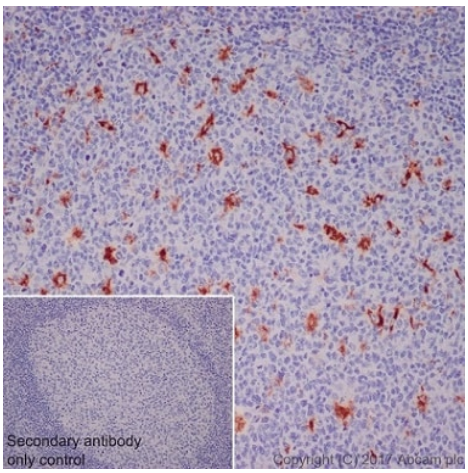


Immunocytochemistry/ Immunofluorescence - Anti-CD68 antibody [EPR20545] (ab213363)

Immunofluorescent analysis of 100% methanol-fixed THP-1 (human monocytic leukemia cell line) cells labeling CD68 with ab213363 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on THP-1 cells.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

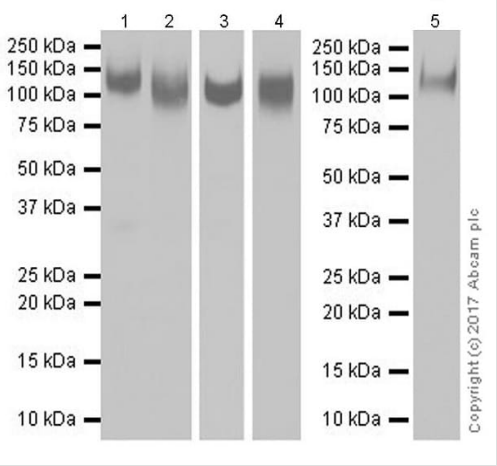
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

Immunohistochemical analysis of paraffin-embedded human tonsil tissue, labeling CD68 with ab213363 at 1/8000 dilution, followed by Goat anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on macrophages of human tonsil is observed (PMID: 19543531). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-Rabbit IgG H&L (HRP) Ready to use.



Western blot - Anti-CD68 antibody [EPR20545] (ab213363)

Lanes 1-3 & 5 : Anti-CD68 antibody [EPR20545] (ab213363) at 1/1000 dilution
Lane 4 : Anti-CD68 antibody [EPR20545] (ab213363) at 1/5000 dilution

Lane 1 : Human fetal liver lysate at 20 µg
Lane 2 : Human tonsil lysate at 20 µg
Lane 3 : Human fetal spleen lysate at 20 µg
Lane 4 : THP-1 (human monocytic leukemia cell line) whole cell lysate at 10 µg
Lane 5 : U937 (human histiocytic lymphoma cell line) whole cell lysate at 10 µg

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

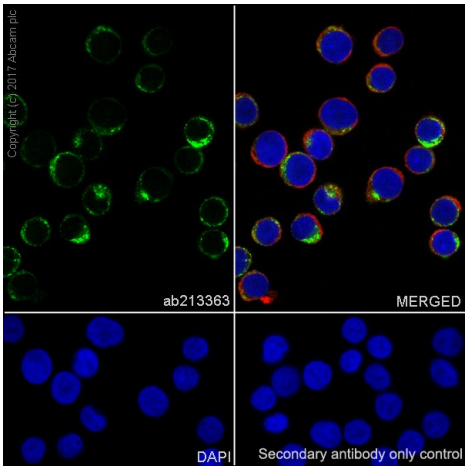
Developed using the ECL technique.

Predicted band size: 37 kDa
Observed band size: 110 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time: Lane 1/2/4/5: 30 seconds; Lane 3: 3 minutes.

The observed molecular weight is consistent with the literature (PMID:18405323; PMID:11739566; PMID: 16710801).

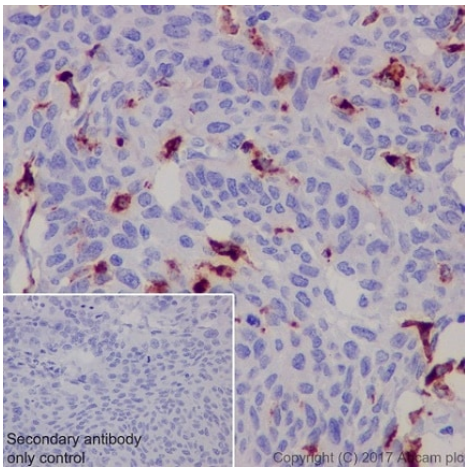


Immunocytochemistry/ Immunofluorescence - Anti-CD68 antibody [EPR20545] (ab213363)

Immunofluorescent analysis of 100% methanol-fixed U937 (human histiocytic lymphoma cell line) cells labeling CD68 with ab213363 at 1/100 dilution followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining on U937 cells.

The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) (**ab195889**) (red) at 1/200 dilution.

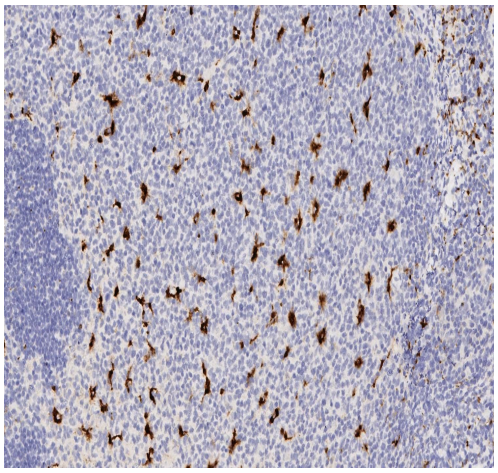
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

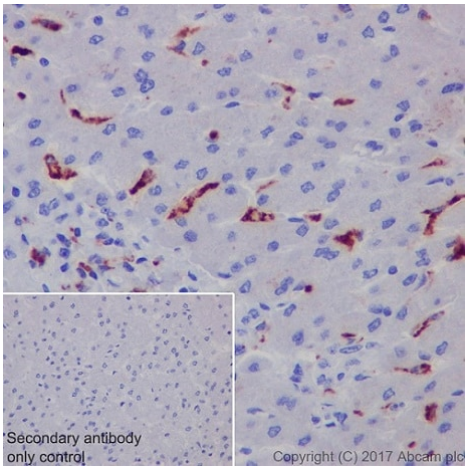
Immunohistochemical analysis of paraffin-embedded human cervical carcinoma tissue labeling CD68 with ab213363 at 1/8000 dilution, followed by Goat anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on macrophages of human cervical carcinoma is observed (PMID: 12118106). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-Rabbit IgG H&L (HRP) Ready to use.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

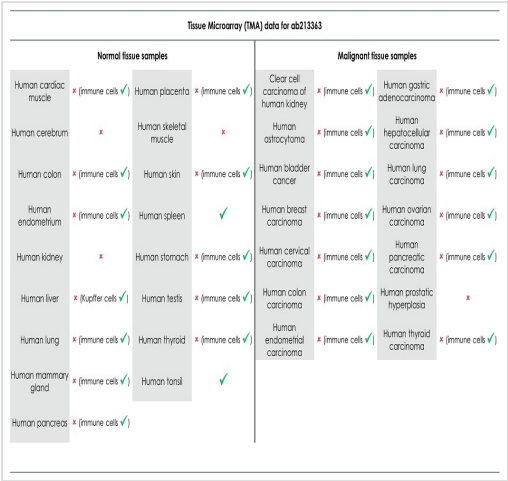
Immunohistochemical analysis of paraffin-embedded human tonsil tissue labeling CD68 with ab213363 at 1/5000 dilution. No blocking step performed. Anti-Rabbit HRP polymer was used as the secondary detection system. Heat-mediated antigen retrieval was performed using EDTA based pH 9.0 buffer.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

Immunohistochemical analysis of paraffin-embedded human liver tissue labeling CD68 with ab213363 at 1/8000 dilution, followed by Goat anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on Kupffer cells of human liver is observed (PMID: 12118106). Counter stained with hematoxylin. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat anti-Rabbit IgG H&L (HRP) Ready to use.

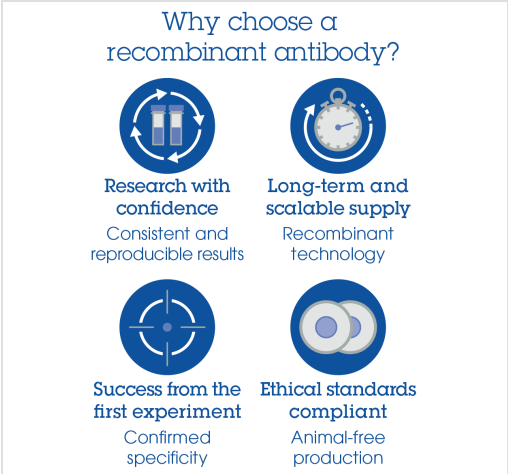


Tissue Microarray (TMA) data for ab213363

Normal tissue samples				Malignant tissue samples			
Human cardiac muscle	x (immune cells ✓)	Human placenta	x (immune cells ✓)	Clear cell carcinoma of human kidney	x (immune cells ✓)	Human gastric adenocarcinoma	x (immune cells ✓)
Human cerebrum	x	Human skeletal muscle	x	Human astrocytoma	x (immune cells ✓)	Human hepatocellular carcinoma	x (immune cells ✓)
Human colon	x (immune cells ✓)	Human skin	x (immune cells ✓)	Human bladder cancer	x (immune cells ✓)	Human lung carcinoma	x (immune cells ✓)
Human endometrium	x (immune cells ✓)	Human spleen	✓	Human breast carcinoma	x (immune cells ✓)	Human ovarian carcinoma	x (immune cells ✓)
Human kidney	x	Human stomach	x (immune cells ✓)	Human cervical carcinoma	x (immune cells ✓)	Human pancreatic carcinoma	x (immune cells ✓)
Human liver	x (Kupffer cells ✓)	Human testis	x (immune cells ✓)	Human colon carcinoma	x (immune cells ✓)	Human prostatic hyperplasia	x
Human lung	x (immune cells ✓)	Human thyroid	x (immune cells ✓)	Human endometrial carcinoma	x (immune cells ✓)	Human thyroid carcinoma	x (immune cells ✓)
Human mammary gland	x (immune cells ✓)	Human tonsil	✓				
Human pancreas	x (immune cells ✓)						

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CD68 antibody [EPR20545] (ab213363)

Tissue Microarrays stained for "Anti-CD68 antibody [EPR20545]" using "ab213363" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab213363 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).



Anti-CD68 antibody [EPR20545] (ab213363)

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