## Overview

**Product name**  
Anti-F4/80 antibody [SP115]

**Description**  
Rabbit monoclonal [SP115] to F4/80

**Host species**  
Rabbit

**Tested applications**  
Suitable for: IHC-P, IHC-FrFl

**Species reactivity**  
Reacts with: Mouse  
Predicted to work with: Rat

**Immunogen**  
Synthetic peptide within Mouse F4/80 aa 50-150 (N terminal). The exact sequence is proprietary.  
Database link: Q61549

**Positive control**  
IHC-P: Mouse colon, liver and lung tissue; M1 and M2 macrophages from mice colon tissue.

**General notes**  
This product is a recombinant rabbit monoclonal antibody.

## Properties

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Storage buffer**  
pH: 7.60  
Preservative: 0.1% Sodium azide  
Constituents: PBS, 1% BSA

**Purity**  
Protein A/G purified

**Purification notes**  
Purified from TCS by protein A/G.

**Clonality**  
Monoclonal

**Clone number**  
SP115

**Isotype**  
IgG

## Applications
Function
Orphan receptor involved in cell adhesion and probably in cell-cell interactions specifically involving cells of the immune system. May play a role in regulatory T-cells (Treg) development.

Tissue specificity
Expression is restricted to eosinophils.

Sequence similarities

Cellular localization
Cell membrane.

Images
Representative immunostaining of F4/80-positive macrophages in the distal colon from healthy and colitic mice treated with and without enoxaparin.

For immunohistochemical staining, antigen retrieval was performed by incubating the sections for 10 minutes at 97°C in 1 mM EDTA buffer, pH 8 or 10 mM citrate buffer, pH 6. Activity of endogenous peroxidase was blocked by incubating sections with 3% v/v hydrogen for 20 minutes. Sections were then washed with 0.05 M Tris-buffered saline containing 0.5% v/v Tween 20 (TBST), pH 7.6. Subsequently, sections were incubated with serum-free protein block for 10 minutes. Colon sections were then incubated with primary antibody ab111101 at 1/100 dilution overnight at 4°C or room temperature for 1 hour. Sections were then washed 3 x 5 minutes and allowed to react with secondary antibody: anti-rabbit immunoglobulin C conjugated to horseradish peroxidase (HRP) (ab7090) at 1/300 dilution at room temperature for 1 hour.

Scale bar = 100 μm for 400 x magnification. Control, C; untreated colitis, DSS; oral enoxaparin, OE; intraperitoneal injection of enoxaparin, IPE.

Our Abpromise guarantee covers the use of ab111101 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Application</th>
<th>Abreviews</th>
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<tr>
<td>IHC-P</td>
<td>⭐⭐⭐⭐Ohio 1/100. For antigen retrieval: Boil tissue section in EDTA buffer for 10 min followed by cooling at RT for 20 min.</td>
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<tr>
<td>IHC-FrFl</td>
<td>Use at an assay dependent concentration. PubMed: 24647450</td>
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Representative images of (A) M1 macrophages (F4/80\(^+\) and iNOS\(^+\)) and (B) M2 macrophages (F4/80\(^+\) and CD206\(^+\)) using colon tissue from n = 3–5 mice. F4/80 positive cells were visualized using Alexa Fluor 594-conjugated goat anti-rat IgG (red). Nuclei were stained with 4',6-diamidino-2-phenylindole (DAPI, blue).

Scale bar = 50 \(\mu\)m for 400 \(\times\) magnification. Control, C; untreated colitis, DSS; colitis with oral enoxaparin, DSS+OE.

For immunofluorescence staining, sections were dewaxed and rehydrated before antigen retrieval using 10 mM citrate buffer, pH 6 for 15 minutes at 97°C. Sections were incubated with serum-free protein block and permeabilized with 0.4% v/v Triton-X at room temperature for 30 minutes. Sections were incubated with primary antibodies anti-F4/80 (ab16911) at 1/25 dilution overnight at 4°C or at room temperature for 1 hour. Sections were washed with TBST 3 \(\times\) 10 minutes and incubated with species-specific secondary antibodies: anti-rat IgG H&L AlexaFluor 594 (ab150160, Abcam, 1:1000) and anti-rabbit IgG H&L AlexaFluor 488 (A11070, Thermo Fisher Scientific, Melbourne, Australia, 1:1000) at room temperature for 2 hours. Sections were rinsed with TBST 3 \(\times\) 10 minutes, followed by a quick wash with distilled water before mounting using Glycerol Mounting Medium (Abcam) that contained 4',6-diamidino-2-phenylindole (DAPI) and 1,4-diazobicyclo-2,2,2-octane (DABCO). Labelled tissues were visualized using a Leica DM LB2 microscope. Fluorescence images (400 \(\times\) magnification) were captured using NIS-Elements 4.13 (Nikon) software.

For full image see PMID: 26218284.

ab111101 at 1/100 dilution staining F4/80 in Formalin-fixed, paraffin-embedded Mouse liver tissue.
Immunohistochemistry analysis of Formalin fixed paraffin-embedded mouse lung tissue sections labeling F4/80 with ab111101 at 1/200 for 16 hours at 4°C. Biotin conjugated Goat anti-rabbit polyclonal antibody at 1/500 was used as the secondary. Antigen retrieval was heat mediated using citrate buffer pH 6.0.

Immunohistochemical analysis staining for macrophages in (A) mouse uterus and (B) mouse spleen using ab111101 at a dilution of 1:200. HRP Anti-Rabbit IgG (Peroxidase) Polymer D antibody was used as a secondary.

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