

## Product datasheet

# Anti-Sp7 / Osterix antibody [EPR21034] ab209484

Recombinant RabMAb

★★★★★ 3 Abreviews 10 References 6 Images

### Overview

<b>Product name</b>	Anti-Sp7 / Osterix antibody [EPR21034]
<b>Description</b>	Rabbit monoclonal [EPR21034] to Sp7 / Osterix
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, IHC-Fr, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Recombinant fragment within Mouse Sp7/ Osterix aa 1-250. The exact sequence is proprietary. Database link: <a href="#">Q8VI67</a>
<b>Positive control</b>	WB: Saos-2 whole cell lysate. IHC: Mouse E14.5 rib, rat E14.5 rib and human chondrosarcoma tissue. IHC-Fr: Mouse embryo E14.5 developing humerus tissue. IP: Saos-2 whole cell lysate.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR21034
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab209484** in the following tested applications.

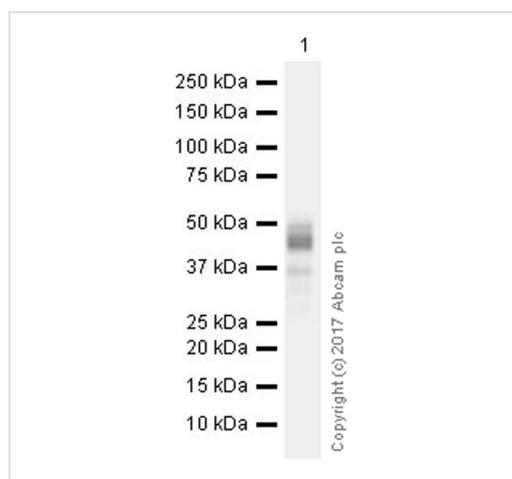
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 45, 47 kDa (predicted molecular weight: 45 kDa).
IP		1/30.
IHC-Fr		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-P	★★★★★	1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

<b>Function</b>	Transcriptional activator essential for osteoblast differentiation. Binds to SP1 and EKLF consensus sequences and to other G/C-rich sequences.
<b>Tissue specificity</b>	Restricted to bone-derived cell.
<b>Sequence similarities</b>	Belongs to the Sp1 C2H2-type zinc-finger protein family. Contains 3 C2H2-type zinc fingers.
<b>Cellular localization</b>	Nucleus.

## Images



Western blot - Anti-Sp7 / Osterix antibody  
[EPR21034] (ab209484)

Anti-Sp7 / Osterix antibody [EPR21034] (ab209484) at 1/1000 dilution + Saos-2 (human osteosarcoma cell line) whole cell lysate at 10 µg

### Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

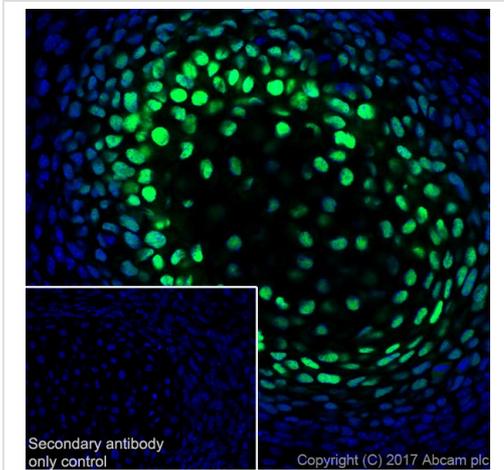
**Predicted band size:** 45 kDa

**Observed band size:** 45, 47 kDa

[why is the actual band size different from the predicted?](#)

Blocking/Dilution buffer: 5% NFD/MTBST.

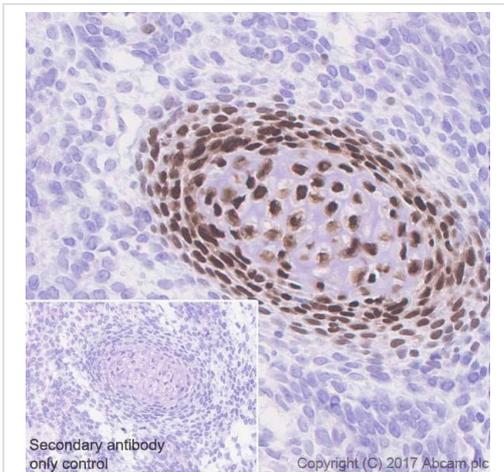
Human Sp7 / Osterix has two isoforms (45 and 47 kDa). The 45kDa isoform is predominant (UniProt ID: Q8TDD2). In Saos-2 cells, we observed a faint, extra band at around 37kDa.



Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized mouse E14.5 developing humerus tissue labeling Sp7 / Osterix with ab209484 at 1/500 dilution, followed by AlexaFluor<sup>®</sup> 488 Goat anti-Rabbit (ab150077) at 1/1000 dilution. Positive staining on the mouse embryo E14.5 developing humerus (PMID:27134141) is observed. Counter stained with DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is AlexaFluor<sup>®</sup> 488 Goat anti-Rabbit (ab150077) at 1/1000 dilution.

Immunohistochemistry (Frozen sections) - Anti-Sp7 / Osterix antibody [EPR21034] (ab209484)

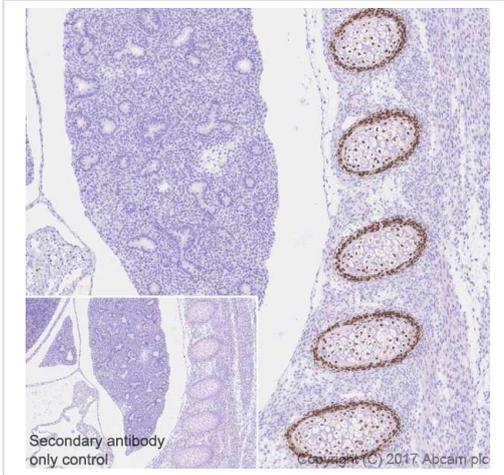


Immunohistochemical analysis of paraffin-embedded rat E14.5 rib tissue labeling Sp7 / Osterix with ab209484 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on osteoblasts and chondrocytes of rat E14.5 rib (PMID: 17579353; PMID: 25977369) is observed. Counter stained with Hematoxylin.

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

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-Sp7 / Osterix antibody [EPR21034] (ab209484)

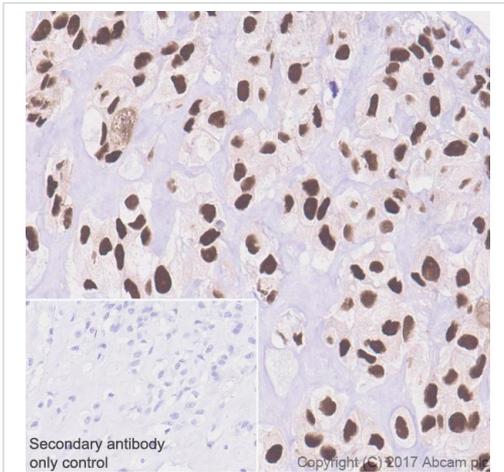


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sp7 / Osterix antibody [EPR21034] (ab209484)

Immunohistochemical analysis of paraffin-embedded mouse E14.5 rib tissue labeling Sp7 / Osterix with ab209484 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on osteoblasts and chondrocytes of mouse E14.5 rib (PMID: 17579353; PMID: 25977369) is observed. Counter stained with Hematoxylin.

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

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

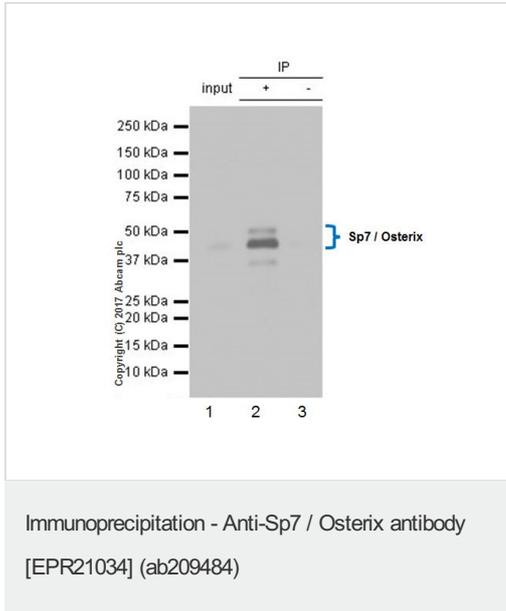


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sp7 / Osterix antibody [EPR21034] (ab209484)

Immunohistochemical analysis of paraffin-embedded human chondrosarcoma tissue labeling Sp7 / Osterix with ab209484 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Nuclear staining on tumor cells of human chondrosarcoma is observed. Counter stained with Hematoxylin.

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

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



Sp7 / Osterix was immunoprecipitated from 0.35mg of Saos-2 (human osteosarcoma cell line) whole cell lysate with ab209484 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab209484 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/10000 dilution.

Lane 1: Saos-2 whole cell lysate 10ug (Input).

Lane 2: ab209484 IP in Saos-2 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab190908 in Saos-2 whole cell lysate.

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 8 seconds.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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