Product datasheet

Anti-ERG antibody [EPR3864(2)] ab133264

Overview

Product name
Anti-ERG antibody [EPR3864(2)]

Description
Rabbit monoclonal [EPR3864(2)] to ERG

Host species
Rabbit

Specificity
This antibody does not cross-react with Fli1.

Tested applications
Suitable for: ICC/IF, WB, IP, IHC-P, Flow Cyt

Species reactivity
Reacts with: Mouse, Human

Immunogen
Synthetic peptide within Human ERG aa 450 to the C-terminus (C terminal). The exact sequence is proprietary.
Database link: P11308

Positive control
Jurkat whole cell lysate (ab7899), 293T cell lysate, MCF7 cell lysate, ERG recombinant protein, Human prostate adenocarcinoma tissue.

General notes

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

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a recombinant rabbit monoclonal antibody.

Properties

Form
Liquid

Storage instructions
Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

Dissociation constant ($K_D$)
$K_D = 3.98 \times 10^{-10} \text{ M}$
Learn more about K

Storage buffer
pH: 7.40
Preservative: 0.01% Sodium azide
Constituents: 50% Glycerol, 0.05% BSA

Purity
Protein A purified

Clonality
Monoclonal

Clone number
EPR3864(2)

Isotype
IgG

Applications

Our Abpromise guarantee covers the use of ab133264 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>1/500.</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>1/2000. Detects a band of approximately 55 kDa (predicted molecular weight: 54 kDa).</td>
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<tr>
<td>IP</td>
<td></td>
<td>1/30.</td>
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<tr>
<td>IHC-P</td>
<td>🌟🌟🌟🌟🌟</td>
<td>1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols.</td>
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<tr>
<td>Flow Cyt</td>
<td></td>
<td>1/120.</td>
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Target

Function
Transcriptional regulator. May participate in transcriptional regulation through the recruitment of SETDB1 histone methyltransferase and subsequent modification of local chromatin structure.

Involvement in disease
Defects in ERG are a cause of Ewing sarcoma (ES) [MM:612219]. A highly malignant, metastatic, primitive small round cell tumor of bone and soft tissue that affects children and adolescents. It belongs to the Ewing sarcoma family of tumors, a group of morphologically heterogeneous neoplasms that share the same cytogenetic features. They are considered neural tumors derived from cells of the neural crest. Ewing sarcoma represents the less differentiated form of the tumors. Note=A chromosomal aberration involving ERG is found in patients with Ewing sarcoma. Translocation t(21;22)(q22;q12) with EWSR1. Note=Chromosomal aberrations involving ERG have been found in acute myeloid leukemia (AML). Translocation t(16;21)(p11;q22) with FUS. Translocation t(X;21)(q25-26;q22) with ELF4.

Sequence similarities
Belongs to the ETS family.
Contains 1 ETS DNA-binding domain.
Contains 1 PNT (pointed) domain.

Cellular localization
Nucleus. Cytoplasm. Localized in cytoplasmic mRNP granules containing untranslated mRNAs.
Western blot - Anti-ERG antibody [EPR3864(2)] (ab133264)

**All lanes**: Anti-ERG antibody [EPR3864(2)] (ab133264) at 1/2000 dilution (purified)

**Lane 1**: Jurkat cell lysate  
**Lane 2**: HEK293 cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size**: 54 kDa  
**Observed band size**: 55 kDa

*why is the actual band size different from the predicted?*

Blocking buffer: 5% NFDM/TBST  
Dilution buffer: 5% NFDM/TBST

ab133264 staining ERG in the human cell line MCF-7 (human breast carcinoma) by 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 1/210. A goat anti rabbit IgG (Alexa Fluor® 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)*
Immunohistochemical staining of paraffin embedded human colonic carcinoma with purified ab133264 at a working dilution of 1 in 250. The secondary antibody used is a HRP goat anti-rabbit H+L (ab97051). The sample is 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.

Immunohistochemical staining of paraffin embedded mouse cardiac muscle with purified ab133264 at a working dilution of 1 in 250. The secondary antibody used is a HRP goat anti-rabbit H+L (ab97051). The sample is 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.
Immunofluorescence staining of MCF7 cells with purified ab133264 at a working dilution of 1 in 500, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti rabbit (ab150077), used at a dilution of 1 in 500. ab7291 was used to stain tubulin, and this is shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative control is shown in bottom middle and right hand panels - for the negative controls, purified ab133264 was used at a dilution of 1/200 followed by an Alexa Fluor® 594 goat anti-mouse antibody at a dilution of 1/500.

ab133264 (purified) at 1/30 immunoprecipitating ERG in HEK293 cells (Lane 1). Lane 2 - PBS. For western blotting, a HRP-conjugated anti-rabbit IgG, specific to the non-reduced form of IgG was used as the secondary antibody (1/1500).

Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.
Western blot - Anti-ERG antibody [EPR3864(2)] (ab133264)

**All lanes**: Anti-ERG antibody [EPR3864(2)] (ab133264) at 1/1000 dilution (unpurified)

**Lane 1**: Jurkat cell lysate
**Lane 2**: 293T cell lysate
**Lane 3**: MCF7 cell lysate

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes**: Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

**Predicted band size**: 54 kDa

Western blot - Anti-ERG antibody [EPR3864(2)] (ab133264)

**All lanes**: Anti-ERG antibody [EPR3864(2)] (ab133264) at 1/1000 dilution (unpurified)

**Lane 1**: Fli1 recombinant protein
**Lane 2**: ERG recombinant protein

Lysates/proteins at 0.01 µg per lane.

**Secondary**
**All lanes**: Goat anti-rabbit HRP conjugated antibody at 1/2000 dilution

**Predicted band size**: 54 kDa
Immunohistochemical analysis of paraffin embedded human prostate adenocarcinoma tissue labelling ERG with ab133264 at a dilution of 1/100.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERG antibody [EPR3864(2)] (ab133264)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D

Other - Anti-ERG antibody [EPR3864(2)] (ab133264)

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