abcam

Product datasheet

Anti-ERG antibody [EPR3864] ab92513

Recombinant RabMAb

15 Abreviews 158 References 13 Images

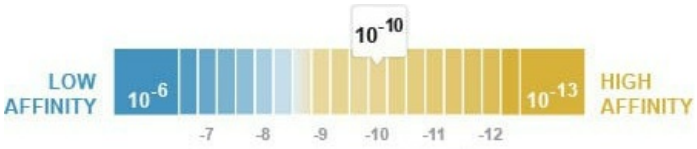
Overview

Product name	Anti-ERG antibody [EPR3864]
Description	Rabbit monoclonal [EPR3864] to ERG
Host species	Rabbit
Specificity	This antibody also detects Fli-1.
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Jurkat, HeLa and RAW 264.7 cell lysates; Rat brain and heart lysates. IHC-P: Human kidney, brain and prostate adenocarcinoma tissues; Fus A5 transgenic mouse prostate tissue; Mouse brain tissue. ICC/IF: Circulating tumor cells (CTCs) from a castrate-resistant prostate cancer (CRPC) patient; THP-1 cells. Flow Cyt (intra): THP-1 cells.
General notes	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. **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.**

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

Dissociation constant (K_D) $K_D = 8.90 \times 10^{-10}$ M



Learn more about K_D

Storage buffer pH: 7.2
Preservative: 0.01% Sodium azide
Constituents: 40% Glycerol, 0.05% BSA, 59% PBS

Purity Protein A purified

Clonality Monoclonal

Clone number EPR3864

Isotype IgG

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab92513 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)	1/1000 - 1/10000. Predicted molecular weight: 55 kDa.
IHC-P	★★★★★ (3)	1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See IHC antigen retrieval protocols. **For unpurified, use 1/100 - 1/250.**
ICC/IF	★★★★★ (3)	1/100 - 1/250.
Flow Cyt (Intra)		Use at an assay dependent concentration.

Target

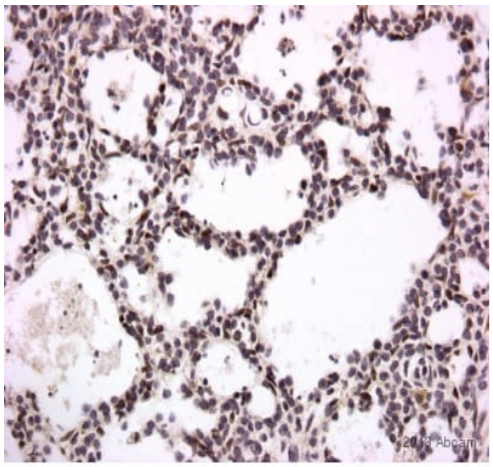
Function Transcriptional regulator. May participate in transcriptional regulation through the recruitment of SETDB1 histone methyltransferase and subsequent modification of local chromatin structure.

Involvement in disease Defects in ERG are a cause of Ewing sarcoma (ES) [MIM: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 Erwing 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.

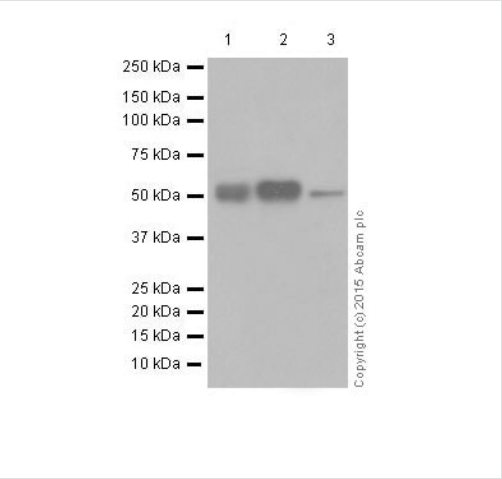
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERG antibody [EPR3864] (ab92513)

Formalin-fixed, paraffin-embedded mouse brain tissue stained for ERG using ab92513 at 1/200 dilution in immunohistochemical analysis. A horse radish peroxidase antibody was used as the secondary antibody.

Antigen Retrieval: 40x; Proteinase K antigen retrieval - 15 min at 37 C



Western blot - Anti-ERG antibody [EPR3864] (ab92513)

All lanes : purified

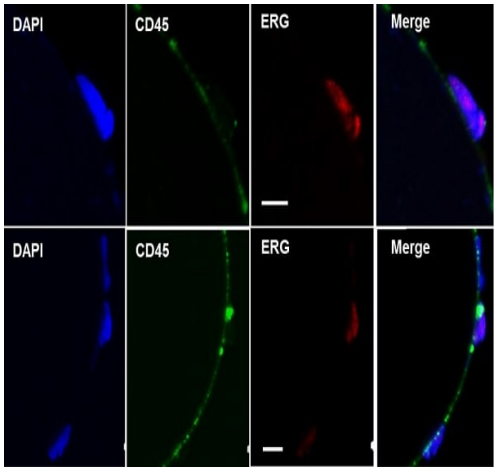
Lane 1 : rat brain lysate
Lane 2 : rat heart lysate
Lane 3 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) cell lysate

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 55 kDa
Observed band size: 55 kDa

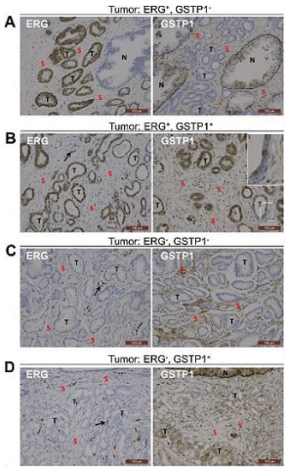
Blocking buffer: 5% NFDM/TBST
Dilution buffer: 5% NFDM/TBST



Immunocytochemistry/ Immunofluorescence - Anti-ERG antibody [EPR3864] (ab92513)

Image from Kirby BJ et al., PLoS One. 2012;8(12):e83903. Fig 4.; doi: 10.1371/journal.pone.0035976. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Functional characterization and detection of genetic alterations in GEDI-captured cells. The TMPRSS2:ERG fusion protein is detected in GEDI-captured circulating tumor cells (CTCs) from a castrate-resistant prostate cancer (CRPC) patient. PSMA-captured CTCs were stained on the device with ab92513. Representative examples of PSMA+/CD45− CTCs are shown, two of which are positive for ERG. Scale bars: 10 microns.

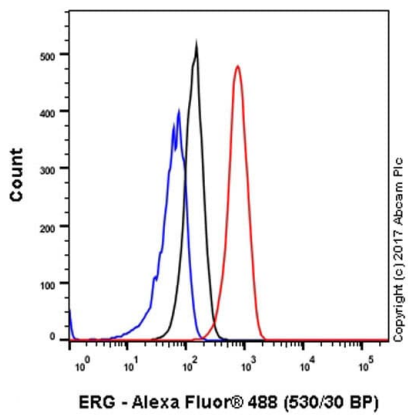


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERG antibody [EPR3864] (ab92513)

Image from Litovkin K et al., PLoS One. 2015;10(6):e0130651. Fig 5.; doi: 10.1371/journal.pone.0130651. Reproduced under the Creative Commons license https://creativecommons.org/publicdomain/zero/1.0/

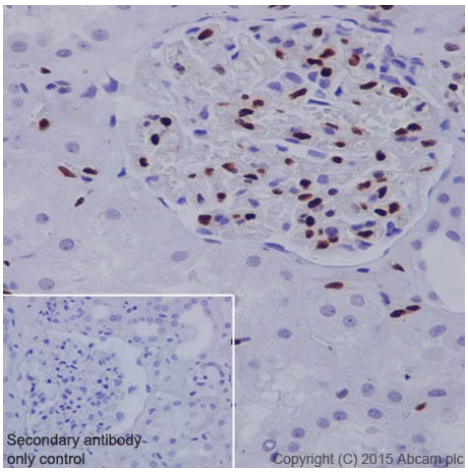
ERG and GSTP1 immunostainings of human prostate cancer samples using ab92513.

Representative immunohistochemical images of prostate cancer samples are shown that were positive for ERG and negative for GSTP1 (A), positive for both ERG and GSTP1 (B), negative for both ERG and GSTP1(C), and negative for ERG and positive for GSTP1 (D). The internal staining control for ERG is the endothelium (arrows) and for GSTP1 the stromal and/or basal cells of normal prostate glands. N, normal prostate gland; S, Stroma; T, tumor gland. Scale bars equal 100µm



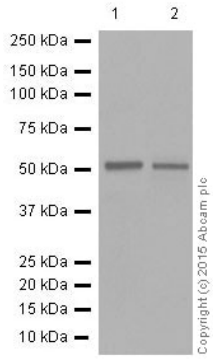
Flow Cytometry (Intracellular) - Anti-ERG antibody [EPR3864] (ab92513)

Intracellular Flow Cytometry analysis of THP-1 (human monocytic leukemia cell line) cells labeling ERG with purified ab92513 at 1/1000 dilution (1ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) (ab172730) was used as the isotype control, Cell without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERG antibody [EPR3864] (ab92513)

Immunohistochemical staining of paraffin embedded human kidney with purified ab92513 at a working dilution of 1/1000. The secondary antibody used is HRP goat anti-rabbit IgG H&L (ab97051) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was perfomed 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.



Western blot - Anti-ERG antibody [EPR3864] (ab92513)

All lanes : Anti-ERG antibody [EPR3864] (ab92513) at 1/2000 dilution (purified)

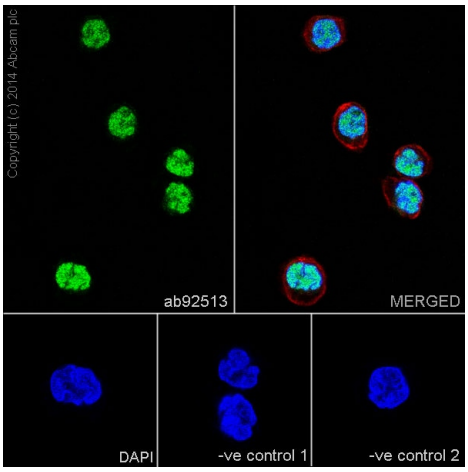
Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate
Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) cell lysate

Lysates/proteins at 20 µg per lane.

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

Predicted band size: 55 kDa
Observed band size: 55 kDa

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

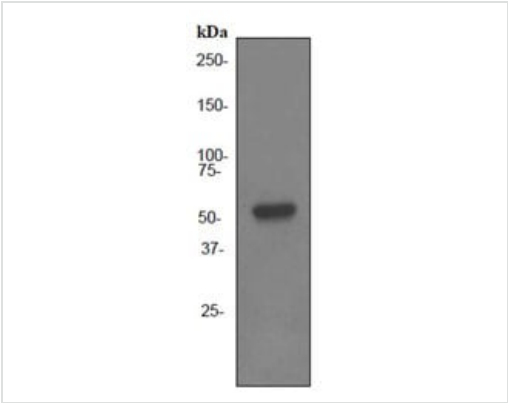


Immunocytochemistry/ Immunofluorescence - Anti-ERG antibody [EPR3864] (ab92513)

Immunofluorescence staining of THP-1 (human monocytic leukemia cell line) cells with purified ab92513 at a working dilution of 1/100, counter-stained with DAPI. The secondary antibody was Alexa Fluor® 488 goat anti-rabbit (ab150077), used at a dilution of 1/1000. ab7291, a mouse anti-tubulin antibody (1/1000), was used to stain tubulin along with ab150120 (Alexa Fluor® 594 goat anti-mouse, 1/1000), shown in the top right hand panel. The cells were fixed in 4% PFA and permeabilized using 0.1% Triton X 100. The negative controls are shown in bottom middle and right hand panels - for negative control 1, purified ab92513 was used at a dilution of 1/500 followed by an Alexa Fluor® 594 goat anti-mouse antibody (ab150120) at a dilution of 1/500. For negative control 2, ab7291 (mouse anti-tubulin) was used at a dilution of 1/500 followed by an Alexa Fluor® 488 goat anti-rabbit antibody (ab150077) at a dilution of 1/400.

Alexa Fluor® 488 (ab196374) and Alexa Fluor® 647 (ab196149)

conjugated versions are available for this clone.



Western blot - Anti-ERG antibody [EPR3864] (ab92513)

Anti-ERG antibody [EPR3864] (ab92513) at 1/1000 dilution (unpurified) + Jurkat (human T cell leukemia cell line from peripheral blood) cell lysate at 10 µg

Secondary
HRP labelled Goat anti-Rabbit at 1/2000 dilution

Predicted band size: 55 kDa

Western blot - Anti-ERG antibody [EPR3864] (ab92513)

Lanes 1 & 3 : Anti-ERG antibody [EPR3864] (ab92513) at 1/250 dilution (unpurified)
Lanes 2 & 4 : Anti-ERG antibody [EPR3864] (ab92513) at 1/1000 dilution (unpurified)

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) Whole Cell Lysate
Lanes 2-4 : Jurkat Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

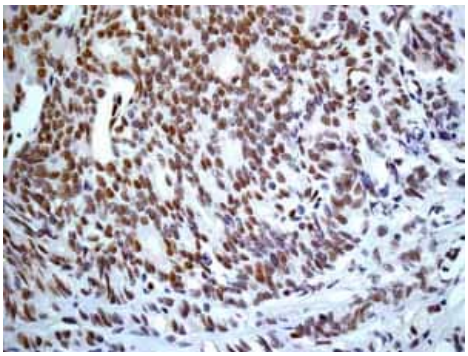
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 55 kDa
Observed band size: 55 kDa

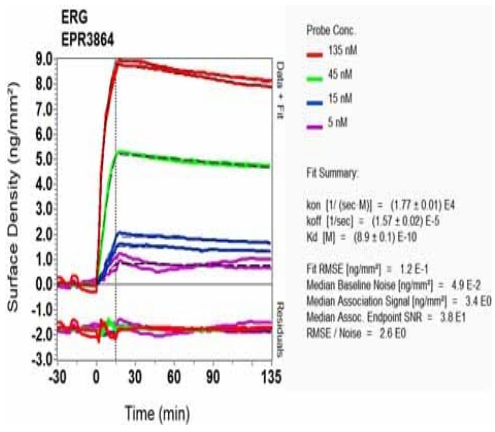
Exposure time: 12 minutes



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ERG antibody [EPR3864] (ab92513)

Immunohistochemical analysis of paraffin embedded Human Prostatic adenocarcinoma stage 3 tissue using unpurified ab92513 showing +ve staining.

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

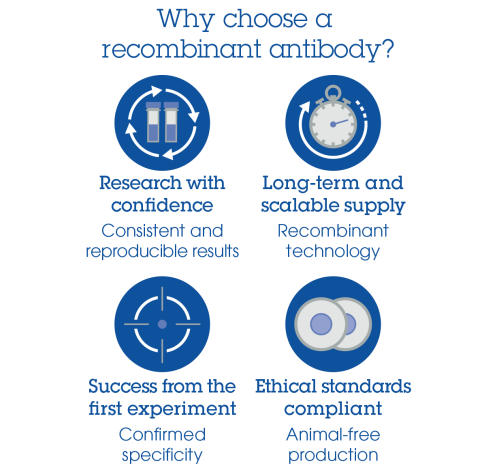


OI-RD Scanning - Anti-ERG antibody [EPR3864] (ab92513)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-ERG antibody [EPR3864] (ab92513)

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