

Datasheet for ABIN6139905
anti-EAF2 antibody (AA 1-170)

2 Images

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Overview

Quantity:	100 µL
Target:	EAF2
Binding Specificity:	AA 1-170
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EAF2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Recombinant fusion protein containing a sequence corresponding to amino acids 1-170 of human EAF2 (NP_060926.2).
Sequence:	MNSAAGFSHL DRRERVLKLG ESFEKQPRCA FHTVRYDFKP ASIDTSSEGY LEVGEQEQT ITLPNIEGST PPVTVFKGSK KPYLKECILI INHDTGECRL EKLSSNITVK KTRVEGSSKI QYRKEQQQQ MWNSARTPNL VKHSPSEDKM SPASPIDDIE RELKAEASLM
Isotype:	IgG
Cross-Reactivity:	Human, Mouse, Rat
Characteristics:	Polyclonal Antibodies
Purification:	Affinity purification

Target Details

Target:	EAF2
Alternative Name:	EAF2 (EAF2 Products)
Background:	<p>Actin is a key regulator of RNA polymerase (Pol) II-dependent transcription. Positive transcription elongation factor b (P-TEFb), a Cdk9/cyclin T1 heterodimer, has been reported to play a critical role in transcription elongation. However, the relationship between actin and P-TEFb is still not clear. In this study, actin was found to interact with Cdk9, a catalytic subunit of P-TEFb, in elongation complexes. Using immunofluorescence and immunoprecipitation assays, Cdk9 was found to bind to G-actin through the conserved Thr-186 in the T-loop. Overexpression and in vitro kinase assays showed that G-actin promotes P-TEFb-dependent phosphorylation of the Pol II C-terminal domain. An in vitro transcription experiment revealed that the interaction between G-actin and Cdk9 stimulated Pol II transcription elongation. ChIP and immobilized template assays indicated that actin recruited Cdk9 to a transcriptional template in vivo and in vitro. Using cytokine IL-6-inducible p21 gene expression system, we revealed that actin recruited Cdk9 to endogenous gene. Moreover, overexpression of actin and Cdk9 increased histone H3 acetylation and acetylated histone H3 binding to a transcriptional template through the interaction with histone acetyltransferase, p300. Taken together, our results suggested that actin participates in transcription elongation by recruiting Cdk9 for phosphorylation of the Pol II C-terminal domain, and the actin-Cdk9 interaction promotes chromatin remodeling.,EAF2,BM040,TRAITS,U19,Epigenetics & Nuclear Signaling,Cancer,Tumor suppressors,Cell Biology & Developmental Biology,Apoptosis,EAF2</p>
Molecular Weight:	14 kDa/28 kDa
Gene ID:	55840
UniProt:	Q96CJ1

Application Details

Application Notes:	WB,1:500 - 1:2000,IF,1:50 - 1:100
Restrictions:	For Research Use only

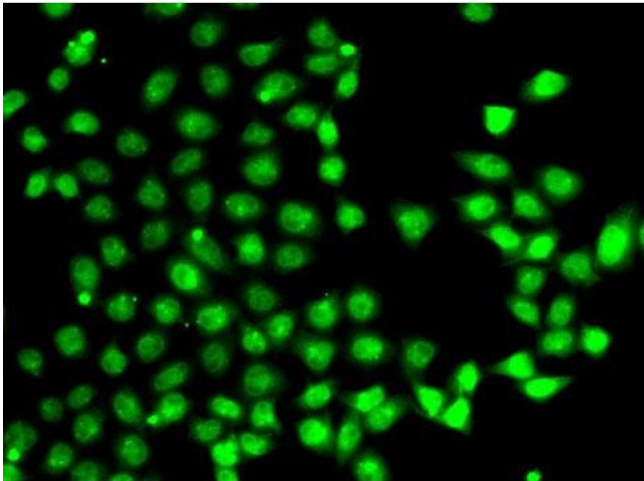
Handling

Format:	Liquid
Buffer:	PBS with 0.02 % sodium azide,50 % glycerol, pH 7.3.
Preservative:	Sodium azide

Handling

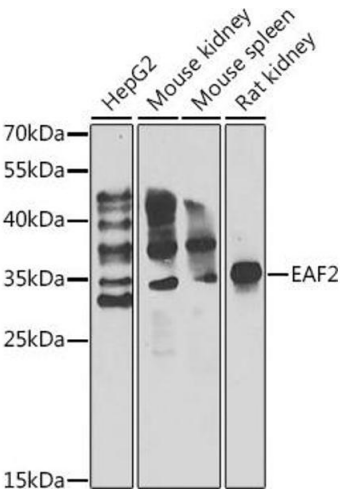
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20°C. Avoid freeze / thaw cycles.

Validation report #104387 for Cleavage Under Targets and Release Using Nuclease (CUT&RUN)



Immunofluorescence

Image 1. Immunofluorescence analysis of A-549 cells using E antibody (ABIN6127826, ABIN6139905, ABIN6139906 and ABIN6222933).



Western Blotting

Image 2. Western blot analysis of extracts of various cell lines, using E antibody (ABIN6127826, ABIN6139905, ABIN6139906 and ABIN6222933) at 1:1000 dilution. Secondary antibody: HRP Goat Anti-Rabbit IgG (H+L) (ABIN1684268 and ABIN3020597) at 1:10000 dilution. Lysates/proteins: 25 µg per lane. Blocking buffer: 3 % nonfat dry milk in TBST. Detection: ECL Enhanced Kit (RM00021). Exposure time: 90s.