Product Datasheet

4E-BP1 Antibody

Catalog No: #21216

Package Size: #21216-1 50ul #21216-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

Product Name	4E-BP1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC IF
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous level of total 4E-BP1 protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.44~48 (S-T-T-P-G) derived from Human 4E-BP1.
Conjugates	Unconjugated
Target Name	4E-BP1
Other Names	EIF4EBP1; PHAS-1;
Accession No.	Swiss-Prot: Q13541NCBI Protein: NP_004086.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

Application Details

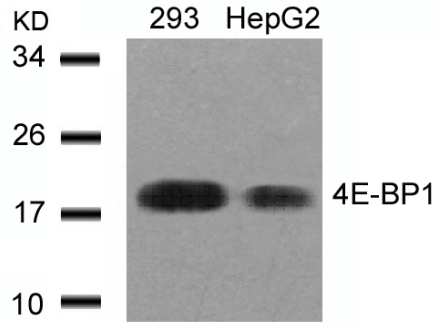
Predicted MW: 18kd

Western blotting: 1:500~1:1000

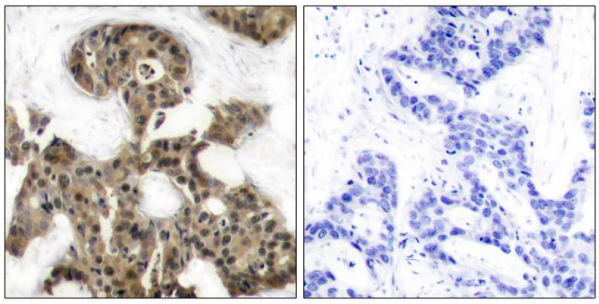
Immunohistochemistry: 1:50~1:100

Immunofluorescence: 1:100~1:200

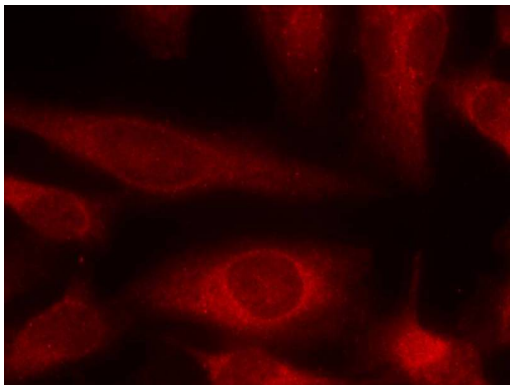
Images



Western blot analysis of extracts from 293 and HepG2 cells using 4E-BP1 (Ab-46) Antibody #21216.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using4E-BP1 (Ab-46) Antibody #21216(left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence staining of methanol-fixed Hela cells using 4E-BP1 (Ab-46) Antibody #21216.

Background

4E-BP1 encodes one member of a family of translation repressor proteins. The protein directly interacts with eukaryotic translation initiation factor 4E (eIF4E), which is a limiting component of the multisubunit complex that recruits 40S ribosomal subunits to the 5' end of mRNAs. Interaction of this protein with eIF4E inhibits complex assembly and represses translation. This protein is phosphorylated in response to various signals including UV irradiation and insulin signaling, resulting in its dissociation from eIF4E and activation of mRNA translation.

Gingras AC, et al. (1998) Genes Dev 12(4): 502-513.
Brugarolas J, et al. (2004) Genes Dev 18(23): 2893-2904.
Kumar V, et al. (2000) EMBO J 19(5): 1087-1097.
Moody CA, et al. (2005) J Virol 79(9): 5499-5506.
Burnett PE, et al. (1998) Proc Natl Acad Sci U S A 95(4): 1432-1437.

Published Papers

el at., The AMPK-dependent inhibition of autophagy plays a crucial role in protecting photoreceptor from photooxidative injury In J Photochem Photobiol B On2023 AugbyYu-Lin Li , Tian-Zi Zhang et al..PMID:37302163, , (2023)

PMID:37302162

Note: This product is for in vitro research use only and is not intended for use in humans or animals.