abcam

ab314092

Anti-ZEB1 antibody [BLR217K] - BSA free

Recombinant

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.8 - 8.6 Preservative: 0.09% Sodium azide Constituents: 98% Borate buffered saline
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human ZEB1 aa 750 to C-terminus. The exact immunogen used to generate this antibody is proprietary information. Database link P37275
Clone number	BLR217K

Reactivity data

Flow Cyt

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

ICC

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

Species	Human

Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information ZEB1

Function	Acts as a transcriptional repressor. Inhibits interleukin-2 (IL-2) gene expression. Enhances or represses the promoter activity of the ATP1A1 gene depending on the quantity of cDNA and on the cell type. Represses E-cadherin promoter and induces an epithelial-mesenchymal transition (EMT) by recruiting SMARCA4/BRG1. Represses BCL6 transcription in the presence of the corepressor CTBP1. Positively regulates neuronal differentiation. Represses RCOR1 transcription activation during neurogenesis. Represses transcription by binding to the E box (5'-CANNTG-3'). In the absence of TGFB1, acts as a repressor of COL1A2 transcription via binding to the E-box in the upstream enhancer region (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

REACH authorisation

Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.

It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ZEB1 also known as δEF1 is a zinc finger E-box-binding homeobox protein with a molecular weight of approximately 124 kDa. It acts as a transcription factor and

	plays an important role in the regulation of gene expression by binding to specific DNA sequences. ZEB1 is mainly expressed in epithelial and mesenchymal cells and is involved in a variety of developmental processes during embryogenesis. Its broad expression pattern reflects its versatile function in different tissues and cell types.
Biological function summary	ZEB1 modulates cellular differentiation and identity by repressing and activating target genes. This protein is particularly notable for its involvement in the epithelial-to-mesenchymal transition (EMT) an important biological process for development and wound healing. ZEB1 doesn't act alone; it forms complexes with other transcription factors and co-repressors such as SMAD and CtBP enhancing its regulatory reach. Through these interactions ZEB1 influences cell adhesion molecules and cytoskeletal components facilitating cell motility and invasion.
Pathways	ZEB1 is integral to the TGF-β signaling pathway influencing cellular responses to growth factors. It also intersects with the Wnt signaling pathway linking it to cellular proliferation and differentiation. Through these pathways ZEB1 interacts with other significant proteins including β-catenin and SMAD proteins which collaboratively regulate gene expression that affects cell phenotype and behavior.
Associated diseases and disorders	The dysregulation of ZEB1 is associated with a variety of pathological conditions including cancer and fibrotic diseases. In cancer ZEB1 contributes to tumor progression and metastasis by promoting EMT a process that enables epithelial cells to acquire mesenchymal traits enhancing their migratory capabilities. This mechanism links ZEB1 to the expression of vimentin and the suppression of E-cadherin important markers in cancer prognosis. Additionally in fibrotic disorders ZEB1's interaction with TGF-β signaling promotes pathological tissue remodeling impacting fibrosis development in organs like the liver and lungs.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

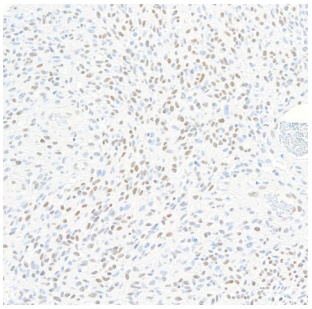
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

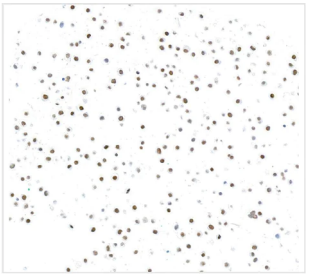
Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



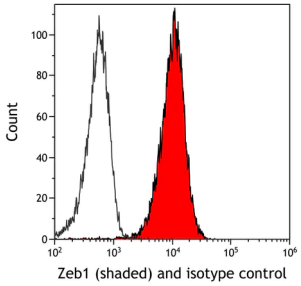
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of human ZEB1 by immunohistochemistry. Sample: FFPE section of glioblastoma. Antibody: Rabbit anti-ZEB1 recombinant monoclonal antibody [BLR217K] (A700-217). Secondary: HRP-conjugated goat antirabbit IgG.



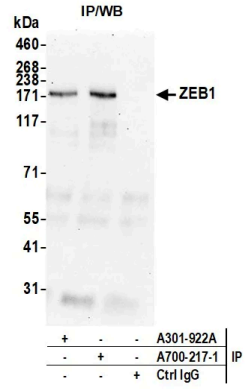
Immunocytochemistry - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of human ZEB1 by immunocytochemistry. Sample:FFPE section of RKO cells. Antibody:Rabbit antiZEB1 recombinant monoclonal antibody [BLR217K] (A700-217). Secondary:HRP-conjugated goat antirabbit IgG.



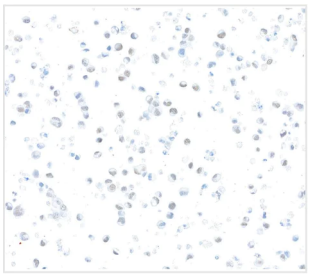
Flow Cytometry - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of human Zeb1 (shaded) in Jurkat cells by flow cytometry. Antibody: Rabbit anti-Zeb1 recombinant monoclonal [BLR217K] (A700-217) or isotype control (unshaded). Secondary: 650-conjugated goat anti-rabbit IgG.



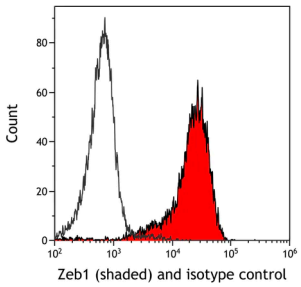
Immunoprecipitation - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Samples: Whole cell lysate (1.0 mg per IP reaction; 5% of IP loaded) from 293T cells prepared using NETN lysis buffer. Antibodies: Rabbit anti-ZEB1 recombinant monoclonal antibody [BLR217K] (A700-217) used for IP at 6 µl/mg lysate. ZEB1 was also immunoprecipitated by a second antibody against a different epitope of ZEB1 (A301-922A). For blotting immunoprecipitated ZEB1, A700-217 was used at 1:1000. Chemiluminescence with an exposure time of 30 seconds.



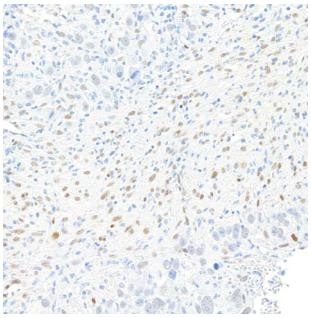
Immunocytochemistry - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of mouse ZEB1 by immunocytochemistry. Sample: FFPE section of ND7/23 cells. Antibody: Rabbit anti-ZEB1 recombinant monoclonal antibody [BLR217K] (A700-217-1). Secondary: HRPconjugated goat anti-rabbit IgG (A120-501P).



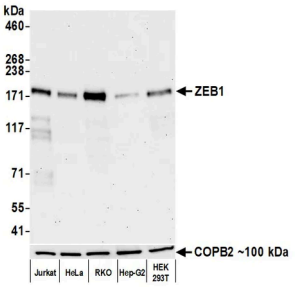
Flow Cytometry - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of mouse Zeb1 (shaded) in EL4 cells by flow cytometry. Antibody: Rabbit anti-Zeb1 recombinant monoclonal [BLR217K] (A700-217) or isotype control (unshaded). Secondary: 650-conjugated goat anti-rabbit IgG.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Detection of mouse ZEB1 by immunohistochemistry Sample: FFPE section of mouse Renca tumor. Antibody: Rabbit anti-ZEB1 recombinant monoclonal antibody [BLR217K] (A700-217). Secondary: HRP-conjugated goat anti-rabbit IgG.



Western blot - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Samples: Whole cell lysate (10 µg) from Jurkat, HeLa, RKO, Hep-G2, and HEK293T cells prepared using NETN lysis buffer. Antibody: Rabbit anti-ZEB1 recombinant monoclonal antibody [BLR217K] (A700-217) used at 1:1000. Secondary: HRP-conjugated goat anti-rabbit IgG. Chemiluminescence with an exposure time of 30 seconds. Lower Panel: Rabbit anti-COPB2 antibody.
All lanes:
Western blot - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092) at 1/1000 dilution

Lane 1:
Jurkat Whole cell lysate at 10 µg

Lane 2:
HeLa Whole cell lysate at 10 µg

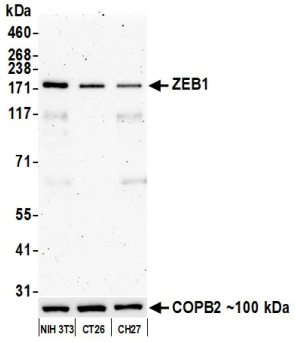
Lane 3:
RKO Whole cell lysate at 10 µg

Lane 4:
Hep-G2 Whole cell lysate at 10 µg

Lane 5:
HEK293T Whole cell lysate at 10 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG



Western blot - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092)

Samples: Whole cell lysate (10 µg) from NIH 3T3, CT26, and CH27 cells prepared using NETN lysis buffer. Antibody: Rabbit antiZEB1 recombinant monoclonal antibody [BLR217K] (A700-217) used at 1:1000. Secondary: HRP-conjugated goat anti-rabbit IgG. Chemiluminescence with an exposure time of 3 minutes. Lower Panel: Rabbit anti-COPB2 antibody.
All lanes:
Western blot - Anti-ZEB1 antibody [BLR217K] - BSA free (ab314092) at 1/1000 dilution

Lane 1:
NIH 3T3 Whole cell lysate at 10 µg

Lane 2:
CT26 Whole cell lysate at 10 µg

Lane 3:
CH27 Whole cell lysate at 10 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.