abcam

ab70425

Anti-Pea3 antibody [1A2G3]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human ETV4 aa 50-150. The exact immunogen used to generate this antibody is proprietary information. Database link P43268
Clone number	1A2G3
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from tissue culture supernatant.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/50 - 1/100

Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Recombinant full length protein - Human
Dilution info	-
Notes	-

WB

Tested

Species	Recombinant full length protein - Human
Dilution info	1/500 - 1/2000
Notes	-

Species	Human
Dilution info	1/500 - 1/2000
Notes	-

Predicted

Species	Mouse
Dilution info	-
Notes	-

Target data

See full target information ETV4

Function	Transcriptional activator (PubMed:19307308, PubMed:31552090). Regulates the positioning of motor neurons within the lateral medial column of the spinal cord and controls the terminal arborization of specific motor neuron axons within their target muscles (By similarity). Required for the expression of CDH8 and SEMA3E in ETV4-expressing motor neurons and for the exclusion of CDH7 expression from these neurons (By similarity). May play a role in keratinocyte differentiation (PubMed:31552090). (Microbial infection) Binds to the enhancer of the adenovirus E1A gene and acts as a transcriptional activator; the core-binding sequence is 5'-[AC]GGA[AT]GT-3'.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

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

Activity summary	Pea3 also called PEA3 or ETV4 functions as a transcription factor from the ETS family. It has a mass of approximately 55 kDa. This protein regulates gene expression by binding to specific DNA sequences. Pea3 is mainly expressed in the brain lung and liver tissues where it influences the transcription of a range of target genes. It plays an important role in mediating cellular responses to extracellular signals.
Biological function summary	Pea3 influences key processes like cell proliferation differentiation and migration. It often operates within larger protein complexes to execute these roles. Pea3 has been shown to regulate genes involved in development and oncogenic processes by interacting with co-factors in transcriptional complexes. By activating or repressing the transcription of specific genes Pea3 contributes to the dynamic regulation of cellular environments.
Pathways	Several intracellular signaling pathways involve Pea3 in integrating cellular responses to external stimuli. Notably Pea3 plays a role in the MAPK/ERK pathway where it works alongside proteins like ERK and other transcription factors to mediate cell growth and differentiation. Pea3 also participates in the PI3K/AKT pathway influencing cell survival and metabolism. In these pathways Pea3 acts as a bridge linking extracellular signals to transcriptional outputs.

Associated diseases and disorders	Pea3 connects to cancer progression and metastasis. Overexpression of Pea3 is associated with various cancers including breast and lung cancer where it interacts with proteins like matrix metalloproteinases (MMPs) to promote metastasis. Pea3 also links to neurological disorders by influencing genes involved in brain development and function demonstrating its widespread significance in disease contexts.

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

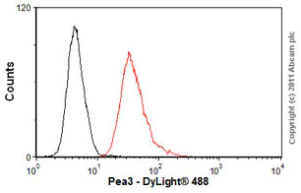
We do not recommend this combination. It is not covered by our product promise.

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.

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2 product images

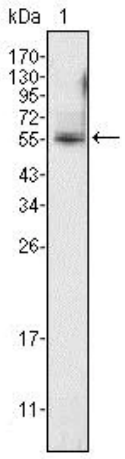


Flow Cytometry - Anti-Pea3 antibody [1A2G3] (ab70425)

Pea3 Flow Cytometry staining using mouse Anti-Pea3 antibody

Overlay histogram showing K562 cells stained with ab70425 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab70425, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in K562 cells fixed with 4% paraformaldehyde (10

min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Western blot - Anti-Pea3 antibody [1A2G3] (ab70425)

All lanes:
Western blot - Anti-Pea3 antibody [1A2G3] (ab70425) at 1/2000 dilution

All lanes:
Cell lysates prepared from K562 cells at 100 µg

Secondary

All lanes:
HRP-conjugated Goat polyclonal to mouse IgG1

Predicted band size: 54 kDa

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