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AES Antibody

Catalog # ASC10356

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q08117
Other Accession	NP_945320, 39812019
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21970
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	AES antibody can be used for the detection of AES by Western blot at 1 - 4 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	166
Other Names	AES Antibody: GRG, ESP1, GRG5, TLE5, AES-1, AES-2, GRG, Amino-terminal enhancer of split, Gp130-associated protein GAM, Amino enhancer of split, amino-terminal enhancer of split
Target/Specificity	AES;
Reconstitution & Storage	AES antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	AES Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TLE5 (HGNC:307)
Synonyms	AES, GRG, GRG5
Function	Transcriptional corepressor. Acts as a dominant repressor towards other family members. Inhibits NF-kappa-B-regulated gene expression. May be required for the initiation and maintenance of the differentiated state. Essential for the transcriptional repressor activity of SIX3 during retina and lens development.

Cellular Location	Nucleus.
Tissue Location	Found predominantly in muscle, heart and Placenta. In fetal tissues, abundantly expressed in the heart, lung, kidney, brain and liver

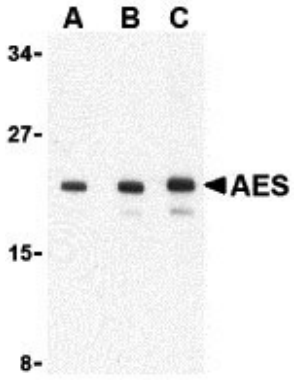
Background

AES Antibody: Adhesion to extracellular matrix regulates cell survival through both integrin engagement and appropriate cell spreading. Anoikis is the molecular mechanism of apop-tosis induced by integrin detachment. Amino-terminal enhancer of split (AES) is a member of the Groucho/ transducin-like enhancer of split (TLE) family of transcriptional regulators, a group of transcriptional co-repressors that play important roles in neurogenesis, segmentation, and sex determination. AES forms a complex with Bit1 (Bcl-2 inhibitor of transcription 1), a mitochondrial protein that is released into the cytoplasm upon onset of apoptosis. It has been suggested that this complex turns off a survival-promoting gene transcription program controlled by the TLE protein family. Interestingly, apoptosis of cells transfected with AES and Bit1 could be inhibited if the cells were allowed to attach to fibronectin through the alpha5beta1 integrin suggesting that the Bit1-AES pathway contributing to anoikis is regulated by integrins, and in particular, the alpha5beta1 integrin.

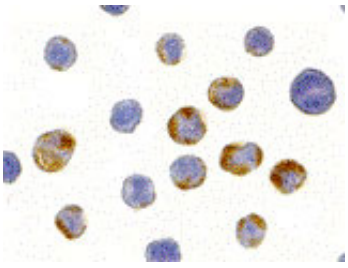
References

Martin SS and Vuori K. Regulation of Bcl-2 proteins during anoikis and amorphosis. Biochim Biophys Acta. 2004; 1692:145-57.
Miyasaka H, Choudhury BK, Hou WE, et al. Molecular cloning and expression of mouse and human cDNA encoding AES and ESG proteins with strong similarity to Drosophila enhancer of split groucho protein. Eur. J. Biochem. 1993; 216:343-52.
Chen G and Courey AJ. Groucho/TLE family proteins and transcriptional repression. Gene 2000; 249:1-16.
Jan Y, Matter M, Pai J-t, et al. A mitochondrial protein, Bit1, mediates apoptosis regulated by integrins and groucho/TLE corepressors. Cell 2004; 116:751-762.

Images

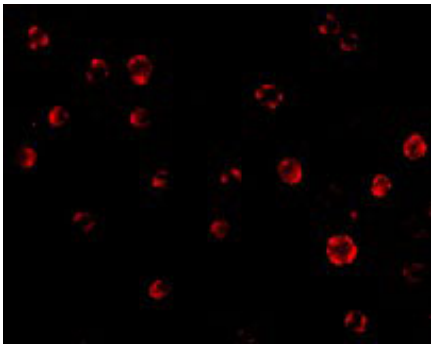


Western blot analysis of AES in 293 cell lysate with AES antibody at (A) 1, (B) 2 and (C) 4 µg/mL.



Immunocytochemistry of AES in HeLa cells with AES antibody at 10 µg/mL.

Immunofluorescence of AES in Hela cells with AES antibody at 20 µg/mL.



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