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Cellular Apoptosis Susceptibility Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP1935a

Product Information

Application	WB, IF, IHC-P, E
Primary Accession	P55060
Other Accession	Q9ERK4, Q7SZC2, A5D785
Reactivity	Human, Mouse
Predicted	Bovine, Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	110417
Antigen Region	55-84

Additional Information

Gene ID	1434
Other Names	Exportin-2, Exp2, Cellular apoptosis susceptibility protein, Chromosome segregation 1-like protein, Importin-alpha re-exporter, CSE1L, CAS, XPO2
Target/Specificity	This Cellular Apoptosis Susceptibility antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 55-84 amino acids from the N-terminal region of human Cellular Apoptosis Susceptibility.
Dilution	WB~~1:1000 IF~~1:100 IHC-P~~1:100 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Cellular Apoptosis Susceptibility Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CSE1L
Synonyms	CAS {ECO:0000303|PubMed:7479798}, XPO2

Function	Export receptor for importin-alpha. Mediates importin-alpha re-export from the nucleus to the cytoplasm after import substrates (cargos) have been released into the nucleoplasm. In the nucleus binds cooperatively to importin-alpha and to the GTPase Ran in its active GTP-bound form. Docking of this trimeric complex to the nuclear pore complex (NPC) is mediated through binding to nucleoporins. Upon transit of a nuclear export complex into the cytoplasm, disassembling of the complex and hydrolysis of Ran-GTP to Ran-GDP (induced by RANBP1 and RANGAP1, respectively) cause release of the importin-alpha from the export receptor. CSE1L/XPO2 then return to the nuclear compartment and mediate another round of transport. The directionality of nuclear export is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus.
Cellular Location	Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm.
Tissue Location	Detected in brain, placenta, ovary, testis and trachea (at protein level) (PubMed:10331944). Widely expressed (PubMed:10331944). Highly expressed in testis and in proliferating cells (PubMed:10331944, PubMed:7479798).

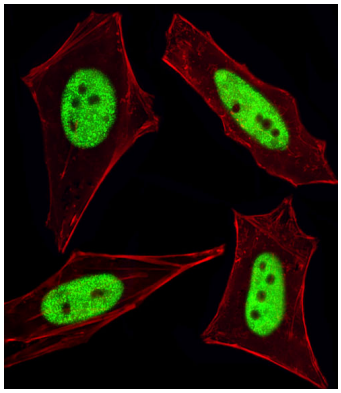
Background

Proteins that carry a nuclear localization signal (NLS) are transported into the nucleus by the importin-alpha/beta heterodimer. Importin-alpha binds the NLS, while importin-beta mediates translocation through the nuclear pore complex. After translocation, RanGTP binds importin-beta and displaces importin-alpha. Importin-alpha must then be returned to the cytoplasm, leaving the NLS protein behind. CSE1L binds strongly to NLS-free importin-alpha, and this binding is released in the cytoplasm by the combined action of RANBP1 and RANGAP1. In addition, CSE1L may play a role both in apoptosis and in cell proliferation.

References

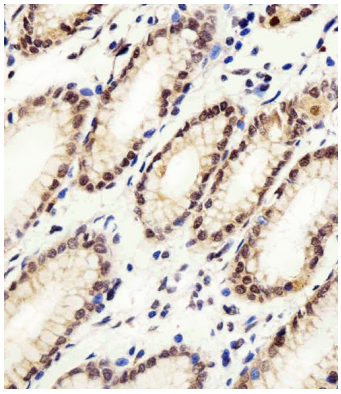
Goldberg, G.S., et al., J. Biol. Chem. 278(47):46533-46540 (2003).
Behrens, P., et al., Apoptosis 8(1):39-44 (2003).
Jiang, M.C., et al., Biochem. Biophys. Res. Commun. 294(4):900-905 (2002).
Wellmann, A., et al., Int. J. Mol. Med. 7(5):489-494 (2001).
Brinkmann, U., et al., Genomics 58(1):41-49 (1999).

Images

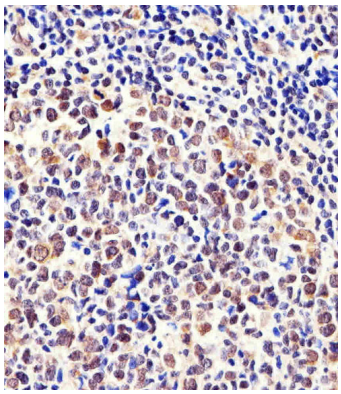


Fluorescent image of HeLa cells stained with Cellular Apoptosis Susceptibility Antibody (C-term) (Cat#AP1935a). AP1935a was diluted at 1:100 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Alexa Fluor® 555 conjugated with Phalloidin (red).

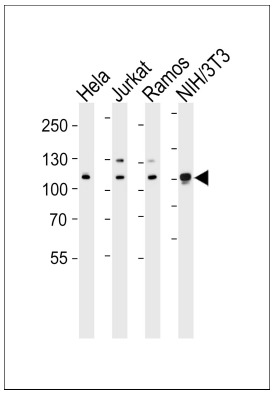
Immunohistochemical analysis of paraffin-embedded H. stomach section using CSE1L Antibody(Cat#AP1935a). AP1935a was diluted at 1:100 dilution. A



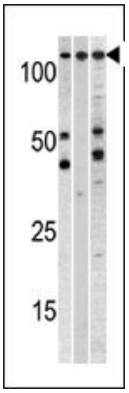
peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. tonsil section using CSE1L Antibody(Cat#AP1935a). AP1935a was diluted at 1:100 dilution. A peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



Western blot analysis of lysates from Hela, Jurkat, Ramos, mouse NIH/3T3 cell line (from left to right), using CSE1L Antibody (Cat. #AP1935a). AP1935a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysates at 35ug per lane.



Western blot analysis of anti-CSE1L Pab (Cat. #AP1935a) in, from left to right, A375, CEM, and mouse heart cell line lysates (35ug/lane). CSE1L(arrow) was detected using the purified Pab.

Citations

- Differential distributions of CSE1L/CAS and E-cadherin in the polarized and non-polarized epithelial glands of neoplastic colorectal epithelium.
- Serum cellular apoptosis susceptibility protein is a potential prognostic marker for metastatic colorectal cancer.
- Higher prevalence of secretory CSE1L/CAS in sera of patients with metastatic cancer.