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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, Rat, Canine, Rabbit, Chicken
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).

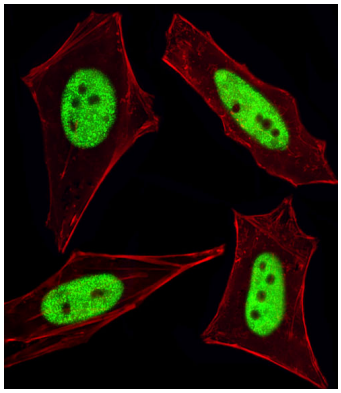
Background

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

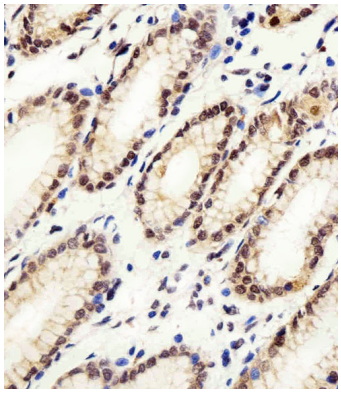
Goldberg, G.S., et al., J. Biol. Chem. 278(47):46533-46540 (2003).
Behrens, P., et al., Apoptosis 8(1):39-44 (2003).
Jiang, M.C., et al., Biochem. Biophys. Res. Commun. 294(4):900-905 (2002).
Wellmann, A., et al., Int. J. Mol. Med. 7(5):489-494 (2001).
Brinkmann, U., et al., Genomics 58(1):41-49 (1999).

Images

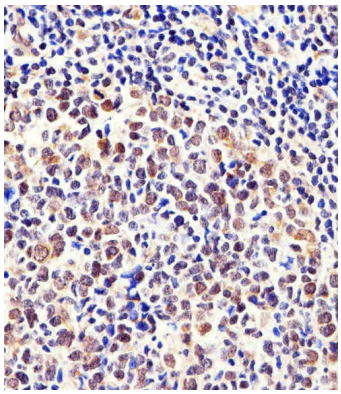


Fluorescent image of HeLa cells stained with Cellular Apoptosis Susceptibility Antibody (C-term) (Cat#AP1935a). AP1935a was diluted at 1:100 dilution. An Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained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

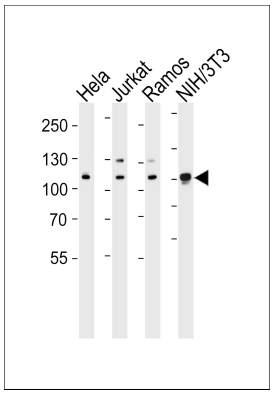
Immunohistochemical analysis of paraffin-embedded H. stomach section using CSE1L Antibody(Cat#AP1935a). AP1935a was diluted at 1:100 dilution. A



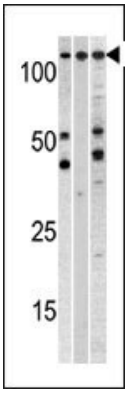
peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



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

- 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.
- Differential distributions of CSE1L/CAS and E-cadherin in the polarized and non-polarized epithelial glands of neoplastic colorectal epithelium.

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