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Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP1935a

Specification

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - Product Information

Primary Accession P55060

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - 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
The synthetic peptide sequence used to generate the antibody AP1935a was selected from the N-term region of human CSE1L. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - 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:7479798, PubMed:10331944).

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - Images

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - 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.

Cellular Apoptosis Susceptibility Antibody (C-term) Blocking peptide - 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).