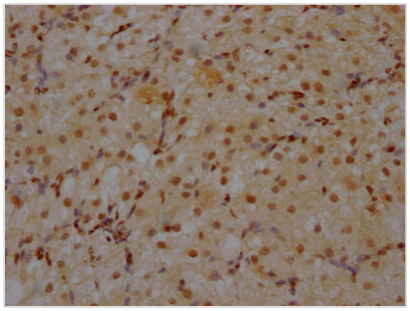
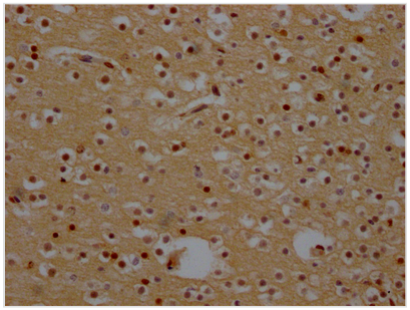
XPO1 Antibody

Product Code	CSB-RA930964A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O14980
Immunogen	A synthesized peptide derived from human CRM1
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	Mediates the nuclear export of cellular proteins (cargos) bearing a leucine-rich nuclear export signal (NES) and of RNAs. In the nucleus, in association with RANBP3, binds cooperatively to the NES on its target protein and to the GTPase RAN in its active GTP-bound form (Ran-GTP). Docking of this 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 cargo from the export receptor. 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. Involved in U3 snoRNA transport from Cajal bodies to nucleoli. Binds to late precursor U3 snoRNA bearing a TMG cap. Several viruses, among them HIV-1, HTLV-1 and influenza A use it to export their unspliced or incompletely spliced RNAs out of the nucleus. Interacts with, and mediates the nuclear export of HIV-1 Rev and HTLV-1 Rex proteins. Involved in HTLV-1 Rex multimerization.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Signal transduction
Gene Names	XPO1
Accession NO.	9F2
Image	



IHC image of CSB-RA930964A0HU diluted at 1:100 and staining in paraffin-embedded human ovarian tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA930964A0HU diluted at 1:100 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

XPO1 is a member of the karyopherin family of proteins that transports macromolecules from the nucleus to the cytoplasm. XPO1 is involved in protein trafficking between the nucleus and the cytoplasm, as well as ribosomal RNA, specific necessary mRNAs, mRNA stability, drug response, and ribosomal biogenesis. Additionally, XPO1-mediated nuclear export has been linked to a variety of diseases, including cancer, inflammation, and viral infection. XPO1 impacts the loss of control in cancer cell proliferation via numerous mechanisms and plays a function in cell proliferation control.

The first step in the preparation of recombinant XPO1 antibody is to obtain the XPO1 antibody gene. The heavy and light chain genes of the antibody were constructed into a plasma vector and then transfected into suspended mammalian cells transiently. After expression verification, cell supernatant was collected in expanded culture and purified recombinant XPO1 antibody was obtained using Affinity-chromatography. This recombinant XPO1 antibody has been validated for the detection of XPO1 protein from Human in the ELISA, IHC.