SANTA CRUZ BIOTECHNOLOGY, INC.

# CAS (H-300): sc-28233

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

Cellular apoptosis susceptibility protein (CAS), also called Exportin 2, is a 971 amino acid member of the CSE1 family. CAS mediates Importin α re-export from the nucleus to the cytoplasm after import substrates have been released into the nucleoplasm. In the nucleus, CAS binds cooperatively to Importin α and to the GTPase Ran in its GTP-bound (active) form. This complex binds to nucleoporins as it docks to the nuclear pore complex. Once in the cytoplasm, the complex dissociates and Importin α is released and CAS returns to the nuclear compartment and the process begins anew. CAS can be detected highly in proliferating cells. 3 isoforms of CAS have been named due to alternative splicing. Isoform 1 is the full length, 971 amino acid protein. Isoform 2 contains an alternative sequence for amino acids 190-195 and is missing amino acids 196-971. Isoform 3 contains an alternative sequence for amino acids 943-945 and is missing amino acids 946-971.

## REFERENCES


1. Brinkmann, U., et al. 1995. Cloning and characterization of a cellular apoptosis susceptibility gene, the human homologue to the yeast chromosome segregation gene CSE1. Proc. Natl. Acad. Sci. USA 92: 10427-10431.
2. King, K.L., et al. 1995. Cell cycle and apoptosis: common pathways to life and death. J. Cell. Biochem. 58: 175-180.
3. Columbano, A. 1995. Cell death: current difficulties in discriminating apoptosis from necrosis in the context of pathological processes *in vivo*. J. Cell. Biochem. 58: 181-190.
4. Eastman, A. 1995. Survival factors, intracellular signal transduction, and the activation of endonucleases in apoptosis. Semin. Cancer Biol. 6: 45-52.
5. Hengartner, M.O. 1995. Out-of body experiences: cell-free cell death. Bioessays 17: 549-552.
6. Kroemer, G., et al. 1995. The biochemistry of programmed cell death. FASEB J. 9: 1277-1287.
7. McDonnell, T.J., et al. 1995. Implications of apoptotic cell death regulation in cancer therapy. Semin. Cancer Biol. 6: 53-60.


## CHROMOSOMAL LOCATIONS

Genetic locus: CSE1L (human) mapping to 20q13.13; Cse1l (mouse) mapping to 2 H3.

## SOURCE

CAS (H-300) is a rabbit polyclonal antibody raised against amino acids 672-971 mapping at the C-terminus of CAS of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CAS (H-300) is recommended for detection of CAS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

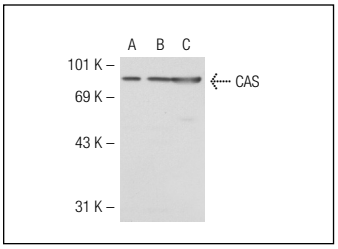
CAS (H-300) is also recommended for detection of CAS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CAS siRNA (h): sc-29908, CAS siRNA (m): sc-29909, CAS shRNA Plasmid (h): sc-29908-SH, CAS shRNA Plasmid (m): sc-29909-SH, CAS shRNA (h) Lentiviral Particles: sc-29908-V and CAS shRNA (m) Lentiviral Particles: sc-29909-V.

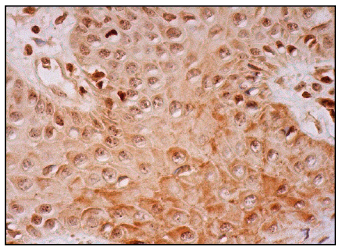
Molecular Weight of CAS: 100 kDa.

Positive Controls: CAS (h): 293T Lysate: sc-111651, MOLT-4 nuclear extract: sc-2151 or SW480 nuclear extract: sc-2155.

## DATA




CAS (H-300): sc-28233. Western blot analysis of CAS expression in non-transfected: sc-117752 (**A**) and human CAS transfected: sc-111651 (**B**) 293T whole cell lysates and SW480 nuclear extract (**C**).



CAS (H-300): sc-28233. Immunoperoxidase staining of formalin fixed, paraffin-embedded oral mucosa tissue showing nuclear and cytoplasmic staining of glandular cells.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.