SANTA CRUZ BIOTECHNOLOGY, INC.

# CAS (H-2): sc-271537

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. Three 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

CAS (H-2) is a mouse monoclonal antibody raised against amino acids 672-971 mapping at the C-terminus of CAS of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CAS (H-2) is available conjugated to agarose (sc-271537 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271537 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271537 PE), fluorescein (sc-271537 FITC), Alexa Fluor® 488 (sc-271537 AF488), Alexa Fluor® 546 (sc-271537 AF546), Alexa Fluor® 594 (sc-271537 AF594) or Alexa Fluor® 647 (sc-271537 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271537 AF680) or Alexa Fluor® 790 (sc-271537 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

CAS (H-2) is recommended for detection of CAS of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

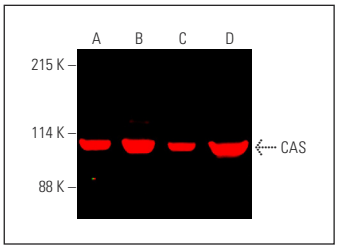
Molecular Weight of CAS: 100 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, Jurkat whole cell lysate: sc-2204 or F9 cell lysate: sc-2245.

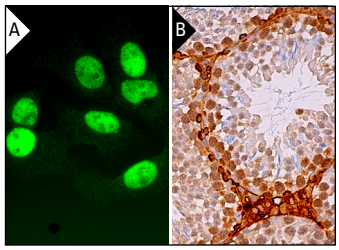
## STORAGE

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

## DATA




CAS (H-2): sc-271537. Near-infrared western blot analysis of CAS expression in F9 (**A**), Jurkat (**B**), RAW 264.7 (**C**) and SW480 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.




CAS (H-2): sc-271537. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse testis tissue showing nuclear and cytoplasmic staining of cells in seminif-erous ducts and Leydig cells (**B**).

## SELECT PRODUCT CITATIONS


1. Liao, C.F., et al. 2012. CSE1L, a novel microvesicle membrane protein, mediates Ras-triggered microvesicle generation and metastasis of tumor cells. Mol. Med. 18: 1269-1280.
2. Lee, W.R., et al. 2015. Early decline in serum phospho-CSE1L levels in vemurafenib/sunitinib-treated melanoma and sorafenib/lapatinib-treated colorectal tumor xenografts. J. Transl. Med. 13: 191.
3. Chin, S.Y., et al. 2015. High expression of cytoplasmic phosphorylated CSE1L in malignant melanoma but not in benign nevi: phosphorylated CSE1L for the discrimination between melanoma and benign nevi. Int. J. Clin. Exp. Pathol. 8: 1393-1401.
4. Li, Y., et al. 2019. Elucidating the host interactome of EV-A71 2C reveals viral dependency factors. Front. Microbiol. 10: 636.
5. Oostdyk, L.T., et al. 2019. Characterization of the importin-β binding domain in nuclear import receptor KPNA7. Biochem. J. 476: 3413-3434.
6. Aftabizadeh, M., et al. 2021. Potent antitumor effects of cell-penetrating peptides targeting Stat3 axis. JCI Insight 6: e136176.
7. Nagashima, S., et al. 2021. CSE1L promotes nuclear accumulation of transcriptional coactivator TAZ and enhances invasiveness of human cancer cells. J. Biol. Chem. 297: 100803.
8. Salvi, A., et al. 2022. PHY34 inhibits autophagy through V-ATPase V0A2 subunit inhibition and CAS/CSE1L nuclear cargo trafficking in high grade serous ovarian cancer. Cell Death Dis. 13: 45.


## RESEARCH USE

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