SANTA CRUZ BIOTECHNOLOGY, INC.

ESX1 (H-184): sc-98689

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ESX1 was originally identified as a regulator of mouse embryogenesis. In mice, it is primarily expressed in placenta and testis where it functions in placenta/fetus development and spermatogenesis, respectively. In human cell lines, ESX1 has been elucidated as a paired-like homeoprotein that is proteolytically processed into N-terminal and C-terminal fragments. The N-terminal ESX1 fragment, which contains the homeodomain, localizes to the nucleus and represses mRNA transcription from the K-ras gene. A gain-of-function mutation of the K-ras gene is one of the most common genetic changes in human tumors. Therefore, ESX1 is implicated as a therapeutic target in the treatment of human cancers that have oncogenic K-ras mutations.

REFERENCES

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6. Wang, X. and Zhang, J. 2007. Rapid evolution of primate ESX1, an X-linked placenta- and testis-expressed homeobox gene. Hum. Mol. Genet. 16: 2053-2060.
7. Nakajima, J., Ishikawa, S., Hamada, J., Yanagihara, M., Koike, T. and Hatakeyama, M. 2008. Anti-tumor activity of ESX1 on cancer cells harboring oncogenic K-Ras mutation. Biochem. Biophys. Res. Commun. 370: 189-194.

CHROMOSOMAL LOCATION

Genetic locus: ESX1 (human) mapping to Xq22.2.

SOURCE

ESX1 (H-184) is a rabbit polyclonal antibody raised against amino acids 1-184 mapping at the N-terminus of ESX1 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.

APPLICATIONS

ESX1 (H-184) is recommended for detection of ESX1 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ESX1 siRNA (h): sc-77289, ESX1 shRNA Plasmid (h): sc-77289-SH and ESX1 shRNA (h) Lentiviral Particles: sc-77289-V.

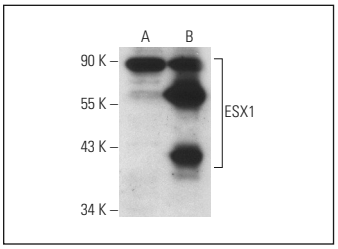
Molecular Weight of full length ESX1: 65 kDa.

Molecular Weight of ESX1 N-terminal fragment: 45 kDa.

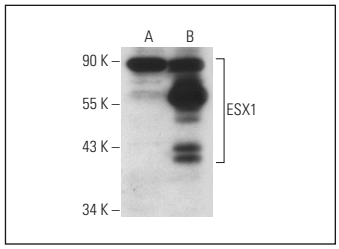
Molecular Weight of ESX1 C-terminal fragment: 20 kDa.

Positive Controls: ESX1 (h): 293T Lysate: sc-112165, mouse testis extract: sc-2405 or Hep G2 cell lysate: sc-2227.

DATA



ESX1 (H-184): sc-98689. Western blot analysis of ESX1 expression in non-transfected: sc-117752 (**A**) and human ESX1 transfected: sc-116502 (**B**) 293T whole cell lysates.



ESX1 (H-184): sc-98689. Western blot analysis of ESX1 expression in non-transfected: sc-117752 (**A**) and human ESX1 transfected: sc-112165 (**B**) 293T whole cell lysates.

STORAGE

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

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.