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ESX1 Antibody

Catalog # ASC11063

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8N693
Other Accession	Q8N693, 116241356
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	44297
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ESX1 antibody can be used for detection of ESX1 by Western blot at 1 - 2 g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	80712
Other Names	Homeobox protein ESX1, Extraembryonic, spermatogenesis, homeobox 1, Homeobox protein ESX1-N, Homeobox protein ESX1-C, ESX1, ESX1L, ESX1R
Target/Specificity	ESX1;
Reconstitution & Storage	ESX1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ESX1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ESX1
Synonyms	ESX1L, ESX1R
Function	May coordinately regulate cell cycle progression and transcription during spermatogenesis. Inhibits degradation of polyubiquitinated cyclin A and cyclin B1 and thereby arrests the cell cycle at early M phase. ESXR1-N acts as a transcriptional repressor. Binds to the sequence 5'-TAATGTTATTA-3' which is present within the first intron of the KRAS gene and inhibits its expression. ESXR1-C has the ability to inhibit cyclin turnover.

Cellular Location	Cytoplasm. Nucleus {ECO:0000255|PROSITE-ProRule:PRU00108, ECO:0000269|PubMed:15235584} Note=ESXR1-N localizes specifically to the nucleus while ESXR1-C localizes specifically to the cytoplasm
Tissue Location	Expressed in placenta and testis. Expressed in testicular germ cell tumors.

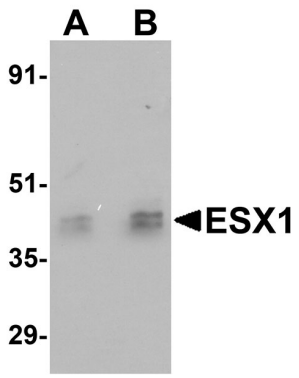
Background

ESX1 Antibody: Homeobox proteins are transcription factors that contain a helix-turn-helix DNA binding domain termed the homeodomain. ESX1 is an X-linked homeobox gene primarily expressed in the placenta and testis and contains two functional domains: the homeodomain and the proline-rich domain. During embryogenesis, ESX1 is expressed in the extraembryonic tissues, including the endoderm of the visceral yolk sac, the ectoderm of the chorion and the labyrinthine trophoblast of the chorioallantoic placenta. ESX1 can act like a transcriptional repressor to the human oncogene K-ras and treatment of human cancer cells with an ESX1 protein fragment containing the homeodomain reduces the tumorgenicity of cells containing oncogenic K-ras mutations, suggesting ESX1 may be useful as a therapeutic treatment for these cancers.

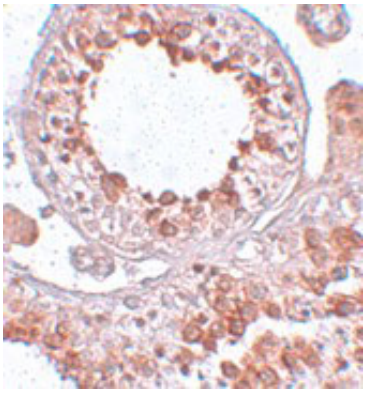
References

Gehring WJ, Affolter M and Burglin T. Homeodomain proteins. Annu. Rev. Biochem.1994; 63:487-526.
Fohn LE and Behringer RR. ESX1L, a novel X chromosome-linked human homeobox gene expressed in the placenta and testis. Genomics2001; 74:105-8.
Li Y, Lemaire P and Behringer RR. ESX1, a novel X chromosome-linked homeobox gene expressed in mouse extraembryonic tissues and male germ cells. Dev. Biol.1997; 188:85-95.
Figueiredo AL, Salles MG, Albano RM, et al. Molecular and morphogenic analyses of expression of ESX1L in different stages of human placental development. J. Cell Mol. Med.2004; 8:545-50.

Images

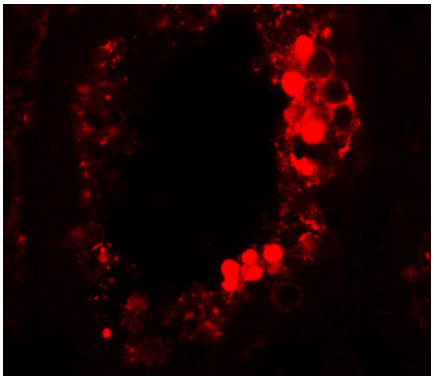


Western blot analysis of ESX1 in human testis tissue lysate with ESX1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of ESX1 in human testis tissue with ESX1 antibody at 2.5 µg/mL.

Immunofluorescence of ESX1 in human testis tissue with



ESX1 antibody at 20 µg/mL.