



Mesothelioma Marker (HBME-1): sc-59307

BACKGROUND

Mesothelioma, a form of cancer caused by previous exposure to asbestos, causes malignant cells to flourish within the mesothelium, a protective lining that covers most of the internal organs of the body. Mesothelioma is most commonly found in the pleura, but it may also occur in the pericardium or peritoneum. When asbestos fibers deposit in the parenchyma of the lung, they penetrate the visceral pleura, from where the fiber can then be carried to the pleural surface, leading to the development of malignant mesothelial plaques. Shortness of breath, cough and pain in the chest due to an accumulation of fluid in the pleural space are often symptoms of Mesothelioma, but may not appear until 20 to 50 years after an initial exposure to asbestos. Because Mesothelioma is a highly aggressive tumor that is generally deadly, treatments using conventional therapies are not successful, limiting patients to a median survival time of 6-12 months after presentation. Markers for Mesothelioma are useful in the study of function and behavior of this tissue.

REFERENCES

1. Zucali, P.A. and Giaccone, G. 2006. Biology and management of malignant pleural mesothelioma. *Eur. J. Cancer* 42: 2706-2714.
2. Bianchi, C., Bianchi, T. and Grandi, G. 2005. Malignant mesothelioma of the pleura among seafarers. *Med. Lav.* 96: 490-495.
3. Yoneda, T., Kumagai, T., Nagatomo, I., Furukawa, M., Yamane, H., Hoshino, S., Mori, M., Takeda, Y., Horai, T., Nishida, S., Watanabe, D., Kijima, T., Yoshida, M., Osaki, T., Tachibana, I., Greene, M.I. and Kawase, I. 2006. The extracellular domain of p185^{c-Neu} induces density-dependent inhibition of cell growth in malignant mesothelioma cells and reduces growth of Mesothelioma *in vivo*. *DNA Cell Biol.* 25: 530-540.
4. Brisson, B.A., Reggeti, F. and Bienzle, D. 2006. Portal site metastasis of invasive mesothelioma after diagnostic thoracoscopy in a dog. *J. Am. Vet. Med. Assoc.* 229: 980-983.
5. Lopes, C., Sotto-Mayor, R., Teixeira, E. and Almeida, A. 2006. Malignant mesothelioma: a ten years experience. *Rev. Port. Pneumol.* 11: 16-18.
6. Musti, M., Kettunen, E., Dragonieri, S., Lindholm, P., Cavone, D., Serio, G. and Knuutila, S. 2006. Cytogenetic and molecular genetic changes in malignant mesothelioma. *Cancer Genet. Cytogenet.* 70: 9-15.
7. Nakano, T. 2006. Malignant mesothelioma—diagnosis and treatment strategies. *Gan To Kagaku Ryoho* 33: 1215-1220.
8. Hiraki, A., Murakami, T., Aoe, K., Sueoka, E., Sueoka, N., Taguchi, K., Kamei, T., Sugi, K., Ueoka, H. and Kishimoto, T. 2006. Heterogeneous nuclear ribonucleoprotein B1 expression in malignant mesothelioma. *Cancer Sci.* 97: 1175-1181.
9. Hahn, C.E. 2006. Mesothelioma research as a social issue. *Inhal. Toxicol.* 18: 991-994.

SOURCE

Mesothelioma Marker (HBME-1) is a mouse monoclonal antibody raised against a suspension of mesothelioma cells of human origin.

PRODUCT

Each vial contains IgM in 250 µl of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Mesothelioma Marker (HBME-1) is recommended for detection of an antigen on microvilli of mesothelioma cells of human origin by immunofluorescence and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:10-1:200).

SELECT PRODUCT CITATIONS

1. Zhao, J., Lin, D.L., Zhai, L.H. and Wang, J.G. 2014. Evaluation of ultrasound-processed rapid cell blocks in the cytopathologic diagnosis of cavity fluids. *Acta Cytol.* 58: 182-191.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

RESEARCH USE

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

PROTOCOLS

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