

# Aspergillus (5E217): sc-70387

## BACKGROUND

*Aspergillus* represents a genus of around 200 filamentous fungi made of chains of cells, called hyphae. All *Aspergillus* species are highly aerobic and grow in oxygen-rich environments worldwide. Most other fungi are usually found growing on carbon-rich surfaces, but *Aspergilli* can also secrete amylase enzymes, which allow it to use polysaccharides e.g. starch as a carbon source. Several species of *Aspergillus* also demonstrate oligotrophy, so they are able to grow in environments containing low amounts of nutrients, or even environments in which there is a complete lack of key nutrients. Some *Aspergillus* species can be pathogenic to humans as well as many grain crops. *A. niger*, a species of *Aspergillus*, is as the major source of citric acid and it accounts for over 99% of global citric acid production in the world.

## REFERENCES

1. Singh, B.P., Banerjee, B. and Kurup, V.P. 2002. *Aspergillus* antigens associated with allergic bronchopulmonary *aspergillosis*. Front. Biosci. 102-109.
2. Banerjee, B. and Kurup, V.P. 2002. Molecular biology of *Aspergillus* allergens. Front. Biosci. 128-139.
3. Jernejc, K. and Legisa, M. 2002. The influence of metal ions on malic enzyme act *Aspergillus niger*. FEMS Microbiol. Lett. 217: 185-190.
4. Liang, D.C., Zuo, A.J., Guo, G. and Zhang, J.Y. 2005. Cloning and expression of an *Aspergillus fumigatus* chitosanase gene. Wei Sheng Wu Xue Bao 45: 539-542.
5. Matsumura, K., Obata, H., Hata, Y., Kawato, A., Abe, Y. and Akita, O. 2005. Isolation and characterization of a novel gene encoding  $\alpha$ -L-arabinofuranosidase from *Aspergillus oryzae*. J. Biosci. Bioeng. 98: 77-84.
6. Thiagarajan, S., Jeya, M. and Gunasekaran, P. 2005. Improvement of xylanase production in solid state fermentation by alkali-tolerant *Aspergillus fumigatus* MKU1 using a fractional factorial design. Indian J. Exp. Biol. 43: 887-891.
7. Martin, J.A., Murphy, R.A. and Power, R.F. 2006. Purification and physico-chemical characterisation of genetically modified phytases expressed in *Aspergillus awamori*. Bioresour. Technol. 97: 1703-1708.
8. Stark, H., Roponen, M., Purokivi, M., Randell, J., Tukiainen, H. and Hirvonen, M.R. 2006. *Aspergillus fumigatus* challenge increases cytokine levels in nasal lavage fluid. Inhal. Toxicol. 18: 1033-1039.

## SOURCE

*Aspergillus* (5E217) is a mouse monoclonal antibody raised against *Aspergillus*.

## PRODUCT

Each vial contains 100  $\mu$ g IgM 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

*Aspergillus* (5E217) is recommended for detection of *Aspergillus* origin by solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.