Product Information

Monoclonal Anti-PSMA antibody produced in mouse clone 107-1A4, purified from hybridoma cell culture

Catalog Number SAB4200257

Product Description
Monoclonal Anti-PSMA (mouse IgG1 isotype) is derived from the hybridoma 107-1A4 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized initially with human normal prostate homogenate followed by immunization with prostate cancer LNCaP cells. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2. The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor. Monoclonal Anti-PSMA recognizes human PSMA (not tested on other species). The antibody may be used in several immunochemical techniques including ELISA, immunocytochemistry, immunoprecipitation and flow cytometry.1,2

Prostate-specific membrane antigen (PSMA) is an integral, non-shed, type 2 transmembrane glycoprotein belonging to the M28 peptidase family. The protein acts as a glutamate carboxypeptidase on different alternative substrates, including the nutrient folate and the neuropeptide N-acetyl-l-aspartyl-l-glutamate. It is expressed in a number of tissues such as prostate, central and peripheral nervous system and kidney. Furthermore, it was found to be a prototypical cell-surface marker of prostate cancer; most abundant and nearly universal expression in prostate carcinoma. In addition, it is expressed in the neovasculature of other solid tumors. These findings have spurred development of PSMA-targeted therapies for cancer, and first-generation products have entered clinical testing.3,4 In other tissues, a mutation in this gene may be associated with impaired intestinal absorption of dietary folates, resulting in low blood folate levels and consequent hyperhomocysteinemia.5 Expression of this protein in the brain may be involved in a number of pathological conditions associated with glutamate excitotoxicity.6

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~ 1.0 mg/mL

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze at −20 °C in working aliquots. Repeated freezing and thawing, or storage in “frost-free” freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation. Working dilution samples should be discarded if not used within 12 hours.

Product Profile
Immunofluorescence: a working antibody concentration 5-10 µg/mL is recommended using methanol/acetone fixed LNCaP cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References