

Product Information

Monoclonal Anti-PSMD1

Clone PSMD1-16, produced in mouse purified immunoglobulin

Product Number **SAB4200131**

Product Description

Monoclonal Anti-PSMD1 (mouse IgG1 isotype) is derived from the hybridoma PSMD1-16 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to a fragment of human PSMD1 (GeneID: 5707), conjugated to KLH. The corresponding sequence is identical in mouse, rat, monkey, bovine, and pig PSMD1. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2.

Monoclonal Anti-PSMD1 recognizes human, mouse, rat, and canine PSMD1. The antibody may be used in several immunochemical techniques including immunoblotting (~105 kDa) and immunoprecipitation. Detection of the PSMD1 band by immunoblotting is specifically inhibited by the immunizing peptide.

The 26S proteasome is a multicatalytic proteinase complex with a highly ordered structure composed of 2 complexes, a 20S core and a 19S regulator. The 20S core is composed of 4 rings of 28 non-identical subunits; 2 rings are composed of 7 α subunits and 2 rings are composed of 7 β subunits. The 19S regulator is composed of a base, which contains 6 ATPase subunits and 2 non-ATPase subunits, and a lid, which contains up to 10 non-ATPase subunits.

Proteasomes are distributed throughout eukaryotic cells at a high concentration and cleave peptides in an ATP/ubiquitin-dependent process in a non-lysosomal pathway. An essential function of a modified proteasome, the immunoproteasome, is the processing of class I MHC peptides. PSMD1 [prosome, macropain] 26S subunit, non-ATPase, 1] is the largest non-ATPase subunit of the 19S regulator lid, which is responsible for substrate recognition and binding.¹⁻³

Reagent

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

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20 °C. 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 before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 μ g/mL is recommended using a whole extract of human HEK-293T cells.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration.

References

1. Yokota, K., et al., *Mol. Biol. Cell*, **7**, 853-870 (1996).
2. Deng, S., et al., *Breast Cancer Res. Treat.*, **104**, 21-30 (2007).
3. da Fonseca, P.C., and Morris, E.P., *J. Biol. Chem.*, **283**, 23305-23314 (2008).

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