SANTA CRUZ BIOTECHNOLOGY, INC.

20S Proteasome β7 (A-10): sc-365726

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The Power to Question

BACKGROUND

The proteasome represents a large protein complex that exists inside all eukaryotes and archaea, and in some bacteria. The main function of proteasomes is to degrade unnecessary or damaged proteins by proteolysis. The most common form of the proteasome, known as the 26S Proteasome, contains one 20S Proteasome core particle structure and two 19S regulatory caps. The 20S Proteasome core is hollow and forms an enclosed cavity, where proteins are degraded, as well as openings at the two ends to allow the target protein to enter. The 20S Proteasome core particle contains many subunits, depending on the organism. All of the subunits fall into one of two types: α subunits, which are structural, serve as docking domains for the regulatory particles and exterior gates blocking unregulated access to the interior cavity; or β subunits, which are predominantly catalytic. The outer two rings in the proteasome consist of seven α subunits each, and the inner two rings each consist of seven β subunits.

REFERENCES

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5. Sassa, H., et al. 2000. Primary structural features of the 20S Proteasome subunits of rice *(Oryza sativa).* Gene 250: 61-66.
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CHROMOSOMAL LOCATION

Genetic locus: PSMB7 (human) mapping to 9q33.3; Psmb7 (mouse) mapping to 2 B.

SOURCE

20S Proteasome β7 (A-10) is a mouse monoclonal antibody raised against amino acids 146-252 mapping within an internal region of 20S Proteasome β7 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

20S Proteasome β7 (H-3) is recommended for detection of 20S Proteasome β7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for 20S Proteasome β7 siRNA (h): sc-62874, 20S Proteasome β7 siRNA (m): sc-62875, 20S Proteasome β7 shRNA Plasmid (h): sc-62874-SH, 20S Proteasome β7 shRNA Plasmid (m): sc-62875-SH, 20S Proteasome β7 shRNA (h) Lentiviral Particles: sc-62874-V and 20S Proteasome β7 shRNA (m) Lentiviral Particles: sc-62875-V.

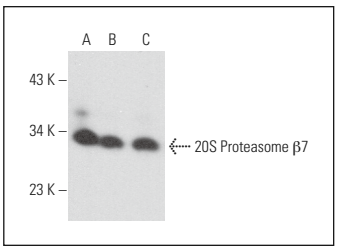
Molecular Weight of 20S Proteasome β7: 30 kDa.

Positive Controls: A-375 cell lysate: sc-3811, A2058 whole cell lysate: sc-364178 or NTERA-2 cl.D1 whole cell lysate: sc-364181.

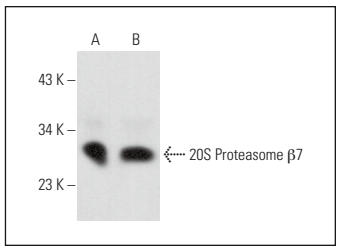
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



20S Proteasome β7 (A-10): sc-365726. Western blot analysis of 20S Proteasome β7 expression in A-375 (**A**), A2058 (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.



20S Proteasome β7 (A-10): sc-365726. Western blot analysis of 20S Proteasome β7 expression in HeLa (**A**) and C6 (**B**) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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