**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 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**


**CHROMOSOMAL LOCATION**

Genetic locus: PSMB7 (human) mapping to 9q33.3; Psmb7 (mouse) mapping to 16q24.1.

**SOURCE**

20S Proteasome β7 (H-3) 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 IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

20S Proteasome β7 (H-3) is available conjugated to agarose (sc-365725 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HPR (sc-365725 HPR), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365725 PE), fluorescein (sc-365725 FITC), Alexa Fluor® 488 (sc-365725 AF488), Alexa Fluor® 546 (sc-365725 AF546), Alexa Fluor® 594 (sc-365725 AF594), or Alexa Fluor® 647 (sc-365725 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 880 (sc-365725 AF880) or Alexa Fluor® 790 (sc-365725 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**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).


Molecular Weight of 20S Proteasome β7: 30 kDa.

Positive Controls: A-375 cell lysate: sc-3811, HeLa whole cell lysate: sc-2200 or Wi-38 whole cell lysate: sc-364260.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-51610 or m-IgGκ BP-HRP (Cruz Marker): sc-51610-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 (H-3): sc-365725. Western blot analysis of 20S Proteasome (β7 expression in HeLa (A), WI-38 (B), AMUZ-C8 (C), F9 (D) and KNRK (E) 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.

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