

26S Proteasome p42C (9E3): sc-65752

BACKGROUND

The 26S Proteasome is a large complex involved in the intracellular degradation of proteins in eukaryotes. Ubiquitination by E3 ubiquitin ligases targets proteins for degradation by this complex. The 26S Proteasome plays an important role in the regulation of many biological processes. It is composed of over 30 different subunits and contains at least two copies of each subunit. Assembly of this large complex is ATP-dependent. Due to its size, it is fairly unstable and often disassociates into subcomplexes (including a 20S core and two 19S regulatory complexes). The 26S Proteasome p42C (also known as Rpt6 in yeast and S8 in human) is one of the six ATPase base subunits of the 19S regulatory complex. The 19S regulatory complex recognizes ubiquitinated proteins, removes the ubiquitin chains and translocates the proteins to the 20S core for degradation. The 26S Proteasome p42C may play a role in recruiting ubiquitination machineries.

REFERENCES

- Cheng, L., et al. 1998. Cloning and characterization of Pros45, the *Drosophila* SUG1 proteasome subunit homolog. *Mol. Gen. Genet.* 259: 13-20.
- Kurucz, E., et al. 2002. Assembly of the *Drosophila* 26S Proteasome is accompanied by extensive subunit rearrangements. *Biochem. J.* 365: 527-536.
- Szlanka, T., et al. 2003. Deletion of proteasomal subunit S5a/Rpn10/p54 causes lethality, multiple mitotic defects and overexpression of proteasomal genes in *Drosophila melanogaster*. *J. Cell Sci.* 116: 1023-1033.
- Ueda, M., et al. 2004. The HALTED ROOT gene encoding the 26S Proteasome subunit RPT2a is essential for the maintenance of *Arabidopsis* meristems. *Development* 131: 2101-2111.
- Babbitt, S.E., et al. 2005. ATP hydrolysis-dependent disassembly of the 26S Proteasome is part of the catalytic cycle. *Cell* 121: 553-565.
- Seong, K.M., et al. 2007. Rpn13p and Rpn14p are involved in the recognition of ubiquitinated Gcn4p by the 26S Proteasome. *FEBS Lett.* 581: 2567-2573.

SOURCE

26S Proteasome p42C (9E3) is a mouse monoclonal antibody raised against 26S Proteasome purified from embryos of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

26S Proteasome p42C (9E3) is available conjugated to agarose (sc-65752 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65752 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65752 PE), fluorescein (sc-65752 FITC), Alexa Fluor® 488 (sc-65752 AF488), Alexa Fluor® 546 (sc-65752 AF546), Alexa Fluor® 594 (sc-65752 AF594) or Alexa Fluor® 647 (sc-65752 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65752 AF680) or Alexa Fluor® 790 (sc-65752 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

26S Proteasome p42C (9E3) is recommended for detection of p42C subunit of the 19S regulatory base complex of the 26S Proteasome of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

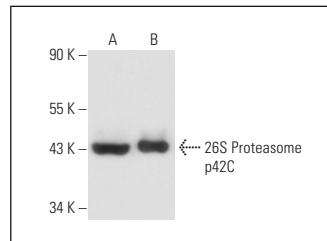
Molecular Weight of 26S Proteasome p42C: 42 kDa.

Positive Controls: *Drosophila* embryo tissue extract.

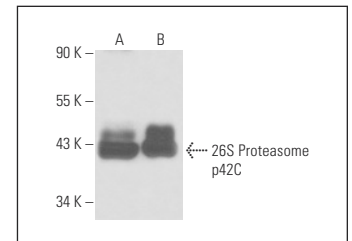
RECOMMENDED SUPPORT REAGENTS

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).

DATA



26S Proteasome p42C (9E3): sc-65752. Western blot analysis of 26S Proteasome expression in *Drosophila* embryo (A) tissue extract and purified *Drosophila* 26S Proteasome (B).



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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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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