

26S Proteasome p58 (U6/272): sc-65744

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 p58 (also known as Rpn3 in yeast and S3 in human) is one of at least nine non-ATPase lid subunits of the 19S regulatory complex. It is important in the proper assembly and stability of the 26S Proteasome. The 19S regulatory complex recognizes ubiquitinated proteins, removes the ubiquitin chains and translocates the proteins to the 20S core for degradation.

REFERENCES

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- Ceriani, M.F., et al. 2002. Genome-wide expression analysis in *Drosophila* reveals genes controlling circadian behavior. *J. Neurosci.* 22: 9305-9319.
- Kurucz, E., et al. 2002. Assembly of the *Drosophila* 26S Proteasome is accompanied by extensive subunit rearrangements. *Biochem. J.* 365: 527-536.
- Kiss, P., et al. 2005. Zn²⁺-induced reversible dissociation of subunit Rpn10/p54 of the *Drosophila* 26S Proteasome. *Biochem. J.* 391: 301-310.
- Park, Y., et al. 2005. Proteasomal ATPase-associated factor 1 negatively regulates proteasome activity by interacting with proteasomal ATPases. *Mol. Cell. Biol.* 25: 3842-3853.
- Huang, W., et al. 2006. The proteolytic function of the *Arabidopsis* 26S Proteasome is required for specifying leaf adaxial identity. *Plant Cell* 18: 2479-2492.

SOURCE

26S Proteasome p58 (U6/272) is a mouse monoclonal antibody raised against 26S Proteasome purified from embryos of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

26S Proteasome p58 (U6/272) is available conjugated to agarose (sc-65744 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65744 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65744 PE), fluorescein (sc-65744 FITC), Alexa Fluor® 488 (sc-65744 AF488), Alexa Fluor® 546 (sc-65744 AF546), Alexa Fluor® 594 (sc-65744 AF594) or Alexa Fluor® 647 (sc-65744 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65744 AF680) or Alexa Fluor® 790 (sc-65744 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

26S Proteasome p58 (U6/272) is recommended for detection of p58 subunit of the 19S regulatory lid 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)].

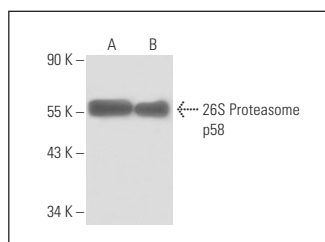
Molecular Weight of 26S Proteasome p58: 56 kDa.

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 p58 (U6/272): sc-65744. Western blot analysis of 26S Proteasome expression in *Drosophila* embryo (A) tissue extract and purified *Drosophila* 26S Proteasome (B).

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.