# SANTA CRUZ BIOTECHNOLOGY, INC.

# 26S Proteasome p50 (112): sc-65745



# 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 p50 (also known as Rpt5 in yeast and S6' 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 p50 is a polyubiquitin interacting protein that plays a role in proteolytic signal recognition.

## REFERENCES

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- 4. Babbitt, S.E., et al. 2005. ATP hydrolysis-dependent disassembly of the 26S Proteasome is part of the catalytic cycle. Cell 121: 553-565.
- Lee, D., et al. 2005. The proteasome regulatory particle alters the SAGA coactivator to enhance its interactions with transcriptional activators. Cell 123: 423-436.
- Szutorisz, H., et al. 2006. The proteasome restricts permissive transcription at tissue-specific gene loci in embryonic stem cells. Cell 127: 1375-1388.
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- 8. Vernace, V.A., et al. 2007. Aging perturbs 26S Proteasome assembly in *Drosophila melanogaster*. FASEB J. 21: 2672-2682.
- Wang, X., et al. 2007. Mass spectrometric characterization of the affinitypurified human 26S Proteasome complex. Biochemistry 46: 3553-3565.

#### SOURCE

26S Proteasome p50 (112) is a mouse monoclonal antibody raised against 26S Proteasome purified from embryos of *Drosophila melanogaster* origin.

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

# PRODUCT

Each vial contains 200  $\mu g~lg G_{2b}$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

26S Proteasome p50 (112) is available conjugated to agarose (sc-65745 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65745 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65745 FIE), fluorescein (sc-65745 FITC), Alexa Fluor<sup>®</sup> 488 (sc-65745 AF488), Alexa Fluor<sup>®</sup> 546 (sc-65745 AF546), Alexa Fluor<sup>®</sup> 594 (sc-65745 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-65745 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-65745 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-65745 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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#### **APPLICATIONS**

26S Proteasome p50 (112) is recommended for detection of p50 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 p50: 50 kDa.

Positive Controls: Drosophila embryo tissue extract.

#### DATA



26S Proteasome p50 (112): sc-65745. Western blot analysis of 26S Proteasome p50 expression in *Drosophila* embryo tissue extract (**A**) and purified *Drosophila* 26S Proteasome (**B**).

#### SELECT PRODUCT CITATIONS

- Ojelade, S.A., et al. 2019. cindr, the *Drosophila* homolog of the CD2AP Alzheimer's disease risk gene, is required for synaptic transmission and proteostasis. Cell Rep. 28: 1799-1813.e5.
- Dubey, S.K., et al. 2022. Nucleoporins are degraded via upregulation of ESCRT-III/Vps4 complex in *Drosophila* models of C9-ALS/FTD. Cell Rep. 40: 111379.

# **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.