SANTA CRUZ BIOTECHNOLOGY, INC.

26S Proteasome p54 (170): sc-65747

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The Power to Question

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 p54 (also known as Rpn10 in yeast and S5a in human) is one of the four non-ATPase base subunits of the 19S regulatory complex. The 26S proteasome p54 is a multiubiquitin binding subunit responsible for the peptidase activity of the 26S proteasome. In the presence of zinc this subunit dissociates from the 19S complex causing peptidase activity to be lost. Once dissociated, the 26S Proteasome p54 interacts with non-proteasomal proteins HSP 82, Smt3, and UBC9.

REFERENCES

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SOURCE

26S Proteasome p54 (170) is a mouse monoclonal antibody raised against 26S Proteasome purified from embryos of *Drosophila* origin.

PRODUCT

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

APPLICATIONS

26S Proteasome p54 (170) is recommended for detection of p54 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)].

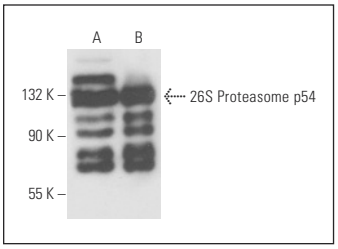
Molecular Weight of 26S Proteasome p5: 54 kDa.

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 p54 (170): sc-65747. Western blot analysis of 26S Proteasome p54 expression in *Drosophila* embryonic protein tissue extract (**A**) and purified 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.