SANTA CRUZ BIOTECHNOLOGY, INC.

PSMB11 (E-13): sc-165305

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In eukaryotic cells, selective breakdown of cellular proteins is ensured by their ubiquitination and subsequent degradation by the 26S Proteasome. The 26S Proteasome is a protease complex that selectively breaks down proteins that have been modified by polyubiquitin chains. It is made up of two multi-subunit complexes: the 20S Proteasome chamber, which serves as the proteolytic core of the complex, and two 19S regulatory particles which recognize and unfold ubiquitinated proteins. The 20S Proteasome chamber contains α subunits (which are structural) and β 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. PSMB11 (proteasome subunit β type-11), also known as BETA5T (Proteasome subunit β-5t) is a 300 amino acid protein that plays an important role in CD8-positive T-cells and reduces chymotripsin-like activity in proteasomes.

REFERENCES

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3. McCusker, D., Jones, T., Sheer, D. and Trowsdale, J. 1997. Genetic relationships of the genes encoding the human proteasome β subunits and the proteasome PA28 complex. Genomics 45: 362-367.
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6. Murata, S., Sasaki, K., Kishimoto, T., Niwa, S., Hayashi, H., Takahama, Y. and Tanaka, K. 2007. Regulation of $CD8^+$ T cell development by thymus-specific proteasomes. Science 316: 1349-1353.

CHROMOSOMAL LOCATION

Genetic locus: PSMB11 (human) mapping to 14q11.2; Psmb11 (mouse) mapping to 14 C3.

SOURCE

PSMB11 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSMB11 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-165305 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PSMB11 (E-13) is recommended for detection of PSMB11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other PSMB family members.

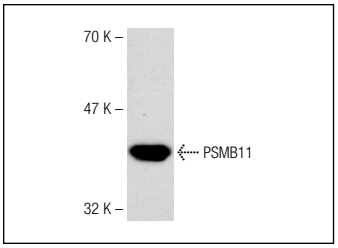
PSMB11 (E-13) is also recommended for detection of PSMB11 in additional species, including equine.

Suitable for use as control antibody for PSMB11 siRNA (h): sc-92455, PSMB11 siRNA (m): sc-152555, PSMB11 shRNA Plasmid (h): sc-92455-SH, PSMB11 shRNA Plasmid (m): sc-152555-SH, PSMB11 shRNA (h) Lentiviral Particles: sc-92455-V and PSMB11 shRNA (m) Lentiviral Particles: sc-152555-V.

Molecular Weight of PSMB11: 33 kDa.

Positive Controls: MTE1D whole cell lysate: sc-364918.

DATA



PSMB11 (E-13): sc-165305. Western blot analysis of PSMB11 expression in MTE1D whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

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