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 multisubunit 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. PSMD12 (proteasome (prosome, macropain) 26S subunit, non-ATPase, 12), also known as p55 or Rpn5, is a 456 amino acid protein belonging to the proteasome subunit p55 family. PSMD12 acts as a regulatory subunit of the 26S proteasome and is a component of the PA700 complex. PSMD12 contains one PCI domain.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: PSMD12 (human) mapping to 17q24.2; Psmd12 (mouse) mapping to 11 E1.

SOURCE
PSMD12 (H-3) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of PSMD12 of human 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.

APPLICATIONS
PSMD12 (H-3) is recommended for detection of PSMD12 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

PSMD12 (H-3) is also recommended for detection of PSMD12 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PSMD12 siRNA (h): sc-93915, PSMD12 siRNA (m): sc-152558, PSMD12 shRNA Plasmid (h): sc-93915-SH, PSMD12 shRNA Plasmid (m): sc-152558-SH, PSMD12 shRNA (h) Lentiviral Particles: sc-93915-V and PSMD12 shRNA (m) Lentiviral Particles: sc-152558-V.

Molecular Weight of PSMD12: 53 kDa.
Positive Controls: RAW 264.7 whole cell lysate: sc-2211, COLO 205 whole cell lysate: sc-364177 or Hep G2 cell lysate: sc-2227.

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, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-RTC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA

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.