PSMB4 (H-3): sc-390878

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. PSMB4 (proteasome (prosome, macropain) subunit, β type, 4), also known as HN5, PROS26, macropain β chain, proteasome β chain or proteasome subunit 3, is a β subunit of the 20S Proteasome.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: PSMB4 (human) mapping to 1q21.3; Psmb4 (mouse) mapping to 3 F2.1.

SOURCE

PSMB4 (H-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 245-262 at the C-terminus of PSMB4 of human origin.

PRODUCT

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-390878 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

PSMB4 (H-3) is recommended for detection of PSMB4 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:300).

PSMB4 (H-3) is also recommended for detection of PSMB4 in additional species, including bovine.

Molecular Weight of PSMB4: 29 kDa.

Positive Controls: human liver extract: sc-363766, A-431 whole cell lysate: sc-2201 or HeLa whole cell lysate: sc-2200.

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).

DATA

PSMB4 (H-3): sc-390878. Western blot analysis of PSMB4 expression in HeLa (A), A-431 (B), RT-4 (C) and U-251-MG (D) whole cell lysates and human liver (E) and human testis (F) tissue extracts.

PSMB4 (H-3): sc-390878. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic and nuclear staining of glandular cells (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.