

LMP2 (N-20): sc-16459

BACKGROUND

The eukaryotic multicatalytic proteinase complex, otherwise known as the proteasome, is present in both the nucleus and cytoplasm of cells and contains at least 15 nonidentical subunits, which form a highly ordered ring-shaped structure. The proteasome is involved in an ATP/ubiquitin-dependent proteolytic pathway and expresses at least five distinct proteolytic activities, including the cleavage of peptides after branched chain amino acids or bulky hydrophobic amino acids. Two components of the proteasome are the low molecular mass proteins LMP2 and LMP7, which are thought to connect the proteasome to the MHC class-I antigen-processing pathway. Upon stimulation with IFN- γ , LMP2 and LMP7 displace housekeeping subunits in the proteasome and activate cytotoxic T cells (CTLs). LMP2 and LMP7 are produced as precursor proteins, which are processed to subunits that have the ability to complex with the proteasome. LMP2 is expressed as two alternatively spliced forms, LMP2.l and LMP2.s, in lymphoblastoid cell lines and in fibroblasts after IFN- γ stimulation. LMP7 is also expressed as two forms, LMP7-E1 and E2, in several tissues.

CHROMOSOMAL LOCATION

Genetic locus: PSMB9 (human) mapping to 6p21.32; Psmb9 (mouse) mapping to 17 B1.

SOURCE

LMP2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of LMP2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16459 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LMP2 (N-20) is recommended for detection of LMP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 1:30-1:3000). LMP2 (N-20) is also recommended for detection of LMP2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for LMP2 siRNA (h): sc-35820, LMP2 siRNA (m): sc-35821, LMP2 shRNA Plasmid (h): sc-35820-SH, LMP2 shRNA Plasmid (m): sc-35821-SH, LMP2 shRNA (h) Lentiviral Particles: sc-35820-V and LMP2 shRNA (m) Lentiviral Particles: sc-35821-V.

Molecular Weight of LMP2 precursor: 23 kDa.

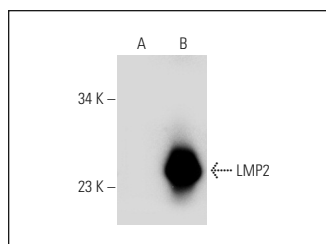
Molecular Weight of mature LMP2: 21 kDa.

Positive Controls: LMP2 (h): 293T Lysate: sc-116960, Daudi cell lysate: sc-2415 or Ramos cell lysate: sc-2216.

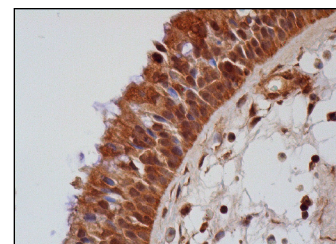
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



LMP2 (N-20): sc-16459. Western blot analysis of LMP2 expression in non-transfected: sc-117752 (A) and human LMP2 transfected: sc-116960 (B) 293T whole cell lysates.



LMP2 (N-20): sc-16459. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

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 or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **LMP2 (G-3): sc-373996** or **LMP2 (G-2): sc-373971**, our highly recommended monoclonal alternatives to LMP2 (N-20).