

# SPPL3 (Q-12): sc-161228

## BACKGROUND

Intramembrane proteolysis is now widely recognized as an important physiological pathway required for reverse signaling and membrane protein degradation. Aspartyl intramembrane cleaving proteases of the GXGD-type play an important regulatory role in health and disease. Signal peptide peptidase (SPP) and SPP-like (SPPL) peptidases belong to the family of GXGD-type aspartyl proteases. SPPL3 (signal peptide peptidase 3), also known as IMP2 (intramembrane protease 2), PSL4, PRQ4332 or UNQ1887, is a 385 amino acid multi-pass membrane protein belonging to the peptidase A22B family. Existing as three isoforms, SPPL3 may act as intramembrane protease. SPPL3 is encoded by a gene located on human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: UNQ1887 (human) mapping to 12q24.31; Spp13 (mouse) mapping to 5 F.

## SOURCE

SPPL3 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPPL3 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-161228 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SPPL3 (Q-12) is recommended for detection of SPPL3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 SPPL2a or SPPL2b.

SPPL3 (Q-12) is also recommended for detection of SPPL3 in additional species, including bovine.

Suitable for use as control antibody for SPPL3 siRNA (h): sc-96234, SPPL3 siRNA (m): sc-153781, SPPL3 shRNA Plasmid (h): sc-96234-SH, SPPL3 shRNA Plasmid (m): sc-153781-SH, SPPL3 shRNA (h) Lentiviral Particles: sc-96234-V and SPPL3 shRNA (m) Lentiviral Particles: sc-153781-V.

Molecular Weight of SPPL3: 43 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.