

# USPL1 (G-16): sc-84656

## BACKGROUND

USPL1 (ubiquitin specific peptidase like 1) is a 1,092 amino acid protein that exists as multiple alternatively spliced isoforms and is encoded by a gene which maps to human chromosome 13. Comprising nearly 4% of the human genome, chromosome 13 contains around 114 million base pairs and encodes over 400 genes. Chromosome 13 houses key tumor suppressor genes, including BRCA2 and RB1, which are associated with breast cancer susceptibility and retinoblastoma, respectively. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

## REFERENCES

1. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
2. O'Reilly, M.K., et al. 2006. *In vitro* evidence for the dual function of Alg2 and Alg11: essential mannosyltransferases in N-linked glycoprotein biosynthesis. *Biochemistry* 45: 9593-9603.
3. Rohozinski, J., et al. 2006. UTP14c is a recently acquired retrogene associated with spermatogenesis and fertility in man. *Biol. Reprod.* 74: 644-651.
4. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
5. Hall, H.E., et al. 2007. The origin of trisomy 13. *Am. J. Med. Genet. A* 143: 2242-2248.
6. Hassler, M., et al. 2007. Crystal structure of the retinoblastoma protein N domain provides insight into tumor suppression, ligand interaction and holoprotein architecture. *Mol. Cell* 28: 371-385.

## CHROMOSOMAL LOCATION

Genetic locus: USPL1 (human) mapping to 13q12.3; *Usp1* (mouse) mapping to 5 G3.

## SOURCE

USPL1 (G-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of USPL1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84656 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

USPL1 (G-16) is recommended for detection of USPL1 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).

Suitable for use as control antibody for USPL1 siRNA (h): sc-76875, USPL1 siRNA (m): sc-154948, USPL1 shRNA Plasmid (h): sc-76875-SH, USPL1 shRNA Plasmid (m): sc-154948-SH, USPL1 shRNA (h) Lentiviral Particles: sc-76875-V and USPL1 shRNA (m) Lentiviral Particles: sc-154948-V.

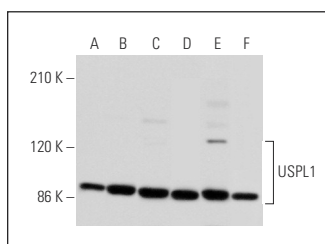
Molecular Weight of USPL1: 120 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or KNRK whole cell lysate: sc-2214.

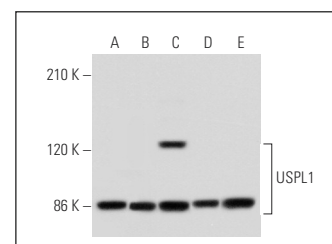
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



USPL1 (G-16): sc-84656. Western blot analysis of USPL1 expression in HeLa (A), Jurkat (B), K-562 (C) and KNRK (D) whole cell lysates, HeLa nuclear extract (E) and mouse brain tissue extract (F).



USPL1 (G-16): sc-84656. Western blot analysis of USPL1 expression in HEK293 (A), PC-12 (B) and ACHN (C) whole cell lysates, mouse testis tissue extract (D) and K-562 nuclear extract (E).

## RESEARCH USE

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

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Try **USPL1 (2F12): sc-293331**, our highly recommended monoclonal alternative to USPL1 (G-16).