

# SPATA5L1 (N-13): sc-137789

## BACKGROUND

SPATA5L1 (spermatogenesis-associated protein 5-like protein 1) is a 753 amino acid protein belonging to the AAA ATPase family and AFG2 subfamily. Single nucleotide polymorphisms (SNPs) present in SPATA5L1 at the glycine amidinotransferase (GATM)-SPATA5L1 locus have been found to correlate with glomerular filtration rate (GFR), having significant implications for kidney disease research. SPATA5L1 localizes to cytoplasm and exists as three alternatively spliced isoforms. The gene encoding SPATA5L1 maps to human chromosome 15q21.1. Encoding more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and comprises about 3% of the human genome. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## REFERENCES

1. Zody, M.C., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
2. Cachón-González, M.B., et al. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
3. Köttgen, A., et al. 2009. Multiple loci associated with indices of renal function and chronic kidney disease. *Nat. Genet.* 41: 712-717.
4. Pesce, F., et al. 2009. Genome-wide association studies in kidney diseases: Quo Vadis? *Nephrol. Dial. Transplant.* 24: 3589-3592.
5. Wheeler, H.E., et al. 2009. Sequential use of transcriptional profiling, expression quantitative trait mapping, and gene association implicates MMP20 in human kidney aging. *PLoS Genet.* 5: e1000685.
6. Pattaro, C., et al. 2010. A meta-analysis of genome-wide data from five European isolates reveals an association of COL22A1, SYT1, and GABRR2 with serum creatinine level. *BMC Med. Genet.* 11: 41.
7. Köttgen, A., et al. 2010. New loci associated with kidney function and chronic kidney disease. *Nat. Genet.* 42: 376-384.

## CHROMOSOMAL LOCATION

Genetic locus: SPATA5L1 (human) mapping to 15q21.1.

## SOURCE

SPATA5L1 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of SPATA5L1 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-137789 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

SPATA5L1 (N-13) is recommended for detection of SPATA5L1 of 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 other SPATA family members.

Suitable for use as control antibody for SPATA5L1 siRNA (h): sc-89924, SPATA5L1 shRNA Plasmid (h): sc-89924-SH and SPATA5L1 shRNA (h) Lentiviral Particles: sc-89924-V.

Molecular Weight of SPATA5L1 isoforms 1/2/3: 81/66/41 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.

## PROTOCOLS

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