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-20°C

#25823

## SPAR (D9P9T) Rabbit mAb

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orders@cellsignal.comEntrez-Gene ID #158376  
UniProt ID #A0A1B0GVQ0

New 07/18

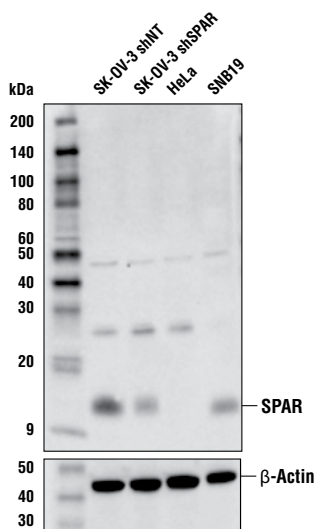
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IP Endogenous	Species Cross-Reactivity* H	Molecular Wt. 13 kDa	Isotype Rabbit IgG**
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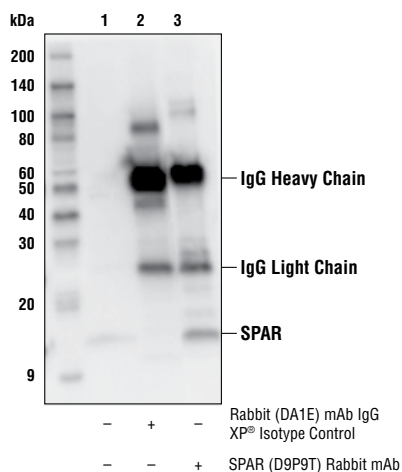
**Background:** Small regulatory Polypeptide of Amino Acid Response (SPAR) is a polypeptide, encoded by the lncRNA LINC00961 gene and is localized in late endosomal and lysosomal membranes. SPAR binds to the lysosomal v-ATPase complex in addition to regulator, RagA and RagC. Upon amino acid stimulation, this supercomplex activates mTORC1 signaling. However, this process is inhibited by the binding of SPAR to the v-ATPase complex, as its formation prevents mTORC1 recruitment to lysosomes. SPAR downregulation and inactivation is an important focus for promoting muscle regeneration following muscle injury. This downregulation and inactivation promotes mTORC1 activation and results in myofiber maturation. In addition to muscle regeneration, SPAR downregulation and inactivation also promotes stem cell proliferation and differentiation.

**Specificity/Sensitivity:** SPAR (D9P9T) Rabbit mAb recognizes endogenous levels of total SPAR protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human SPAR protein.



Western blot analysis of extracts from SK-OV-3 cells, expressing either non-targeting shRNA (shNT) or shSPAR, HeLa cells, and SNB19 cells using SPAR (D9P9T) Rabbit mAb (upper) and beta-Actin (D6A8) Rabbit mAb #8457 (lower). SK-OV-3 shNT and shSPAR cells were kindly provided by Dr. A. Matsumoto, Dr. J.G. Clohessy and Dr. P.P. Pandolfi, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston MA.



◀ Immunoprecipitation of SPAR from SNB19 cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP Isotype Control #3900, and lane 3 is SPAR (D9P9T) Rabbit mAb. Anti-Rabbit IgG, HRP-linked Antibody #7074 was used for detection.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

\*Species cross-reactivity is determined by western blot.

\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.

**Recommended Antibody Dilutions:**

Western blotting 1:1000

Immunoprecipitation 1:200

For product specific protocols and a complete listing of recommended companion products please see the product web page at [www.cellsignal.com](http://www.cellsignal.com).

**Background References:**

(1) Matsumoto, A. et al. (2017) *Nature* 541, 228-232.

Tween is a registered trademark of ICI Americas, Inc.

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween<sup>®</sup>20 at 4°C with gentle shaking, overnight.**

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.