

Store at
-20C
#25823**SPAR (D9P9T) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	13	Rabbit IgG	#A0A1B0GVQ0	158376

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:200

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.

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.

Background

Small regulatory Polypeptide of Amino Acid Response (SPAR) is a polypeptide, encoded by the IncRNA 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.

Background References

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

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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