

# SESN2 Rabbit mAb

Catalog # AP76071

## Product Information

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Application	WB, IP, ICC
Primary Accession	<a href="#">P58004</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	54494

## Additional Information

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Gene ID	83667
Other Names	SESN2
Dilution	WB~~1/500-1/1000 IP~~1/20 ICC~~N/A
Format	Liquid

## Protein Information

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**Name** SESN2 ( [HGNC:20746](#))

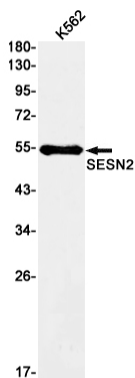
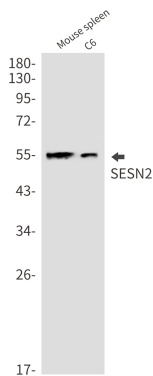
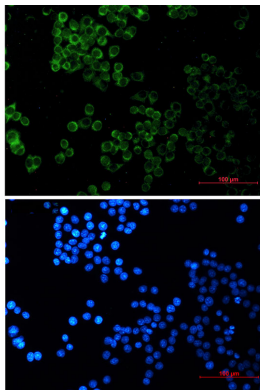
**Function** Functions as an intracellular leucine sensor that negatively regulates the mTORC1 signaling pathway through the GATOR complex (PubMed:[18692468](#), PubMed:[25263562](#), PubMed:[25457612](#), PubMed:[26449471](#), PubMed:[26586190](#), PubMed:[26612684](#), PubMed:[31586034](#), PubMed:[35114100](#), PubMed:[35831510](#), PubMed:[36528027](#)). In absence of leucine, binds the GATOR subcomplex GATOR2 and prevents mTORC1 signaling (PubMed:[18692468](#), PubMed:[25263562](#), PubMed:[25457612](#), PubMed:[26449471](#), PubMed:[26586190](#), PubMed:[26612684](#), PubMed:[31586034](#), PubMed:[35114100](#), PubMed:[35831510](#), PubMed:[36528027](#)). Binding of leucine to SESN2 disrupts its interaction with GATOR2 thereby activating the TORC1 signaling pathway (PubMed:[26449471](#), PubMed:[26586190](#), PubMed:[35114100](#), PubMed:[35831510](#), PubMed:[36528027](#)). This stress-inducible metabolic regulator also plays a role in protection against oxidative and genotoxic stresses. May negatively regulate protein translation in response to endoplasmic reticulum stress, via mTORC1 (PubMed:[24947615](#)). May positively regulate the transcription by NFE2L2 of genes involved in the response to oxidative stress by facilitating the SQSTM1-mediated autophagic degradation of KEAP1 (PubMed:[23274085](#)). May also mediate TP53 inhibition of TORC1 signaling upon genotoxic stress (PubMed:[18692468](#)). Moreover, may prevent the accumulation of reactive oxygen species (ROS) through the alkylhydroperoxide reductase activity born by the N- terminal domain of the protein (PubMed:[26612684](#)). Was originally

reported to contribute to oxidative stress resistance by reducing PRDX1 (PubMed:[15105503](#)). However, this could not be confirmed (PubMed:[19113821](#)).

Cellular Location	Cytoplasm.
Tissue Location	Widely expressed..

Images

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