

Sestrin-2 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6674c**Specification**

Sestrin-2 Antibody (Center) - Product Information

Application	WB, FC,E
Primary Accession	P58004
Other Accession	P58043
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54494
Antigen Region	283-311

Sestrin-2 Antibody (Center) - Additional Information**Gene ID** 83667**Other Names**

Sestrin-2, Hi95, SESN2, SEST2

Target/Specificity

This Sestrin-2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 283-311 amino acids from the Central region of human Sestrin-2.

Dilution

WB~~1:1000

FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Sestrin-2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Sestrin-2 Antibody (Center) - Protein Information**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.

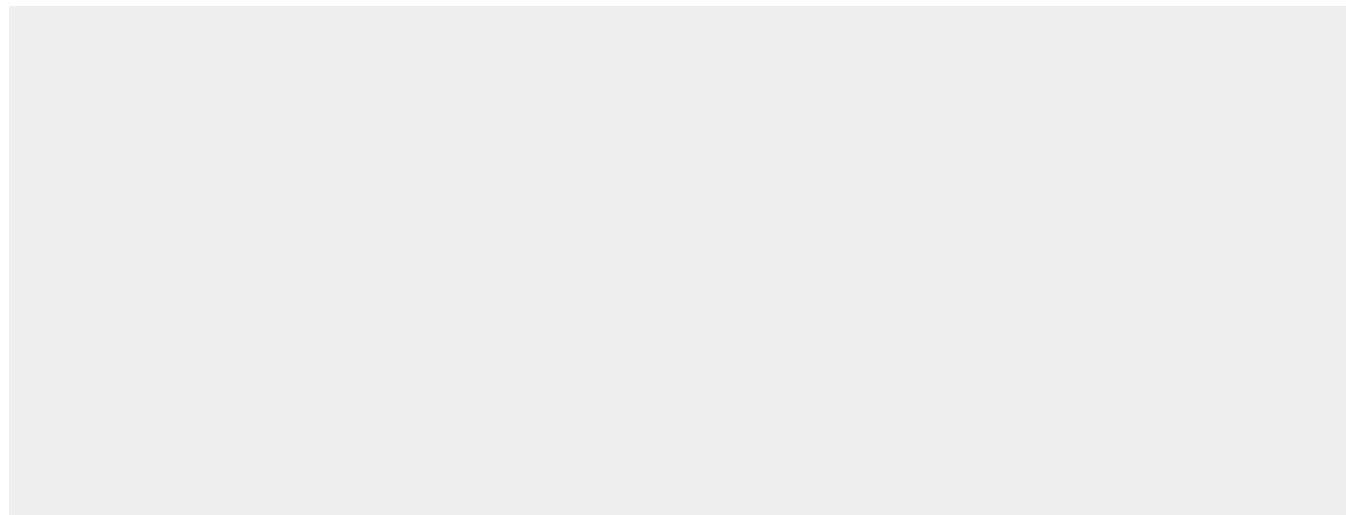
Tissue Location

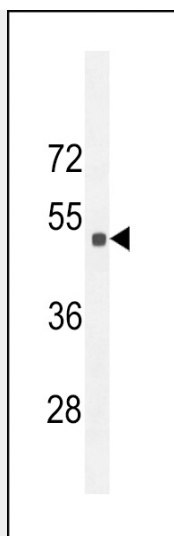
Widely expressed..

Sestrin-2 Antibody (Center) - Protocols

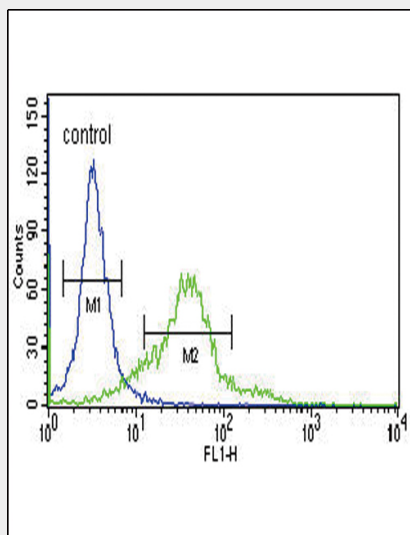
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Sestrin-2 Antibody (Center) - Images



Western blot analysis of Sestrin-2 Antibody (Center) (Cat. #AP6674c) in 293 cell line lysates (35ug/lane). Sestrin-2 (arrow) was detected using the purified Pab. .



Sestrin-2 Antibody (Center) (Cat. #AP6674c) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Sestrin-2 Antibody (Center) - Background

SESN2 is a member of the sestrin family of PA26-related proteins. The protein may function in the regulation of cell growth and survival. This protein may be involved in cellular response to different stress conditions.

Sestrin-2 Antibody (Center) - References

Budanov,A.V., Science 304 (5670), 596-600 (2004)
Peeters,H., Hum. Genet. 112 (5-6), 573-580 (2003)