

Sestrin-1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7650a**Specification**

Sestrin-1 Antibody (N-term) - Product Information

| | |
|-------------------|------------------------|
| Application | WB,E |
| Primary Accession | Q9Y6P5 |
| Reactivity | Human, Mouse |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Antigen Region | 14-43 |

Sestrin-1 Antibody (N-term) - Additional Information**Gene ID** 27244**Other Names**

Sestrin-1, p53-regulated protein PA26, SESN1, PA26, SEST1

Target/Specificity

This Sestrin-1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 14-43 amino acids from the N-terminal region of human Sestrin-1.

Dilution

WB~~1:1000

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-1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Sestrin-1 Antibody (N-term) - Protein Information**Name** SESN1 ([HGNC:21595](#))

Function Functions as an intracellular leucine sensor that negatively regulates the TORC1 signaling pathway through the GATOR complex. In absence of leucine, binds the GATOR subcomplex GATOR2 and prevents TORC1 signaling. Binding of leucine to SESN2 disrupts its interaction with GATOR2 thereby activating the TORC1 signaling pathway (PubMed:[25263562](#),

PubMed:[26449471](#)). This stress-inducible metabolic regulator may also play a role in protection against oxidative and genotoxic stresses (By similarity). 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](#)). Moreover, may prevent the accumulation of reactive oxygen species (ROS) through the alkylhydroperoxide reductase activity born by the N-terminal domain of the protein (By similarity). Was originally reported to contribute to oxidative stress resistance by reducing PRDX1 (PubMed:[15105503](#)). However, this could not be confirmed (By similarity).

Cellular Location

Nucleus. Cytoplasm

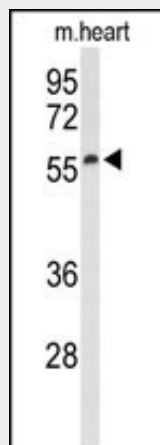
Tissue Location

Widely expressed..

Sestrin-1 Antibody (N-term) - 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-1 Antibody (N-term) - Images

Western blot analysis of Sestrin-1 Antibody (N-term) (Cat. #AP7650a) in mouse heart tissue lysates (35ug/lane). Sestrin-1 (arrow) was detected using the purified Pab.

Sestrin-1 Antibody (N-term) - Background

Sestrin-1 is involved in the reduction of peroxiredoxins. This protein may also be regulator of cellular growth.

Sestrin-1 Antibody (N-term) - References

Budanov,A.V., Science 304 (5670), 596-600 (2004) Peeters,H., Hum. Genet. 112 (5-6), 573-580 (2003) Velasco-Miguel,S., Oncogene 18 (1), 127-137 (1999)

Sestrin-1 Antibody (N-term) - Citations

- [GCN2 sustains mTORC1 suppression upon amino acid deprivation by inducing Sestrin2.](#)