

## Product datasheet for **TP507693**

### Sesn2 (NM\_144907) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse sestrin 2 (Sesn2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR207693 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MIVADSECHSEIKGYLPFTRGGVAGPETREEHREGQARRGSRGPSAFIPVEEILREGAESLEQHLGLEAL  
MSSGRVDNLAVVMGLHPDYLSFFWRLHYLLLHTDGPLASSWRHYAIAIMAAARHQCSYLVGSHMTEFLQTG  
GDPEWLLGLHRAPEKLRKLSEVNKLLAHRPWLITKEHIQALLKTGEHSWSLAELIQALVLLTHCHSLASF  
VFGCGILPEGDAEGSPASQAPSPPEQGTPPSGDPLNNSGGFEAARDVEALMERMRQLQESLLRDEGASQ  
EEMENRFELEKSESLVTPSADILEPSHPDILCFVEDPAFGYEDFTRRGTQAPPTFRAQDYTWEDHGYS  
LIQRLYPEGGQLLDEKFQVACSLTYNTIAMHSGVDTSMRLRAIWNWYIHCVFGRYDDYDYGEVNQLLERN  
LKIYIKTVACYPEKTTRRMYNLFWRHFRHSEKVHVNLLLLLEARMQAALLYALRAITRYMT

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-MYC/DDK
Predicted MW:	54.4 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_659156</a>
Locus ID:	230784



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UniProt ID: [P58043](#)

RefSeq Size: 2677

Cytogenetics: 4 D2.3

RefSeq ORF: 1443

Synonyms: HI95; Ses2; SEST2

**Summary:** 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:18692468, PubMed:25259925). 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 TORC1 (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). Has an 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 (By similarity). However, this could not be confirmed (By similarity).[UniProtKB/Swiss-Prot Function]