Datasheet

Product Name	Recombinant Human 40S ribosomal protein S3(RPS3)
Catalog Number	**AAA18406**
Expression host	*E.coli*
Product Info	N-terminal 6xHis-SUMO-tagged
Buffer	Lyophilized from a 0.2 μm sterile filtered 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0. The volume before lyophilization is 1000μl/vial, 2vials.
Storage	Store at -20℃, for extended storage, conserve at -20℃ or -80℃.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4℃ for up to one week.
Relevance	Involved in translation as a component of the 40S small ribosomal subunit (PubMed:8706699). Has endonuclease activity and plays a role in repair of damaged DNA (PubMed:7775413). Cleaves phosphodiester bonds of DNAs containing altered bases with broad specificity and cleaves supercoiled DNA more efficiently than relaxed DNA (PubMed:15707971). Displays high binding affinity for 7,8-dihydro-8-oxoguanine (8-oxoG), a common DNA lesion caused by reactive oxygen species (ROS) (PubMed:14706345). Has also been shown to bind with similar affinity to intact and damaged DNA (PubMed:18610840). Stimulates the N-glycosylase activity of the base excision protein OGG1 (PubMed:15518571). Enhances the uracil excision activity of UNG1 (PubMed:18973764). Also stimulates the cleavage of the phosphodiester backbone by APEX1 (PubMed:18973764). When located in the mitochondrion, reduces cellular ROS levels and mitochondrial DNA damage (PubMed:23911537). Has also been shown to negatively regulate DNA repair in cells exposed to hydrogen peroxide (PubMed:17049931). Plays a role in regulating transcription as part of the NF-kappa-B p65-p50 complex where it binds to the RELA/p65 subunit, enhances binding of the complex to DNA and promotes transcription of target genes (PubMed:18045535). Represses its own translation by binding to its cognate mRNA (PubMed:20217897). Binds to and protects TP53/p53 from MDM2-mediated ubiquitination (PubMed:19656744). Involved in spindle formation and chromosome movement during mitosis by regulating microtubule polymerization (PubMed:23131551). Involved in induction of apoptosis through its role in activation of CASP8 (PubMed:14988002). Induces neuronal apoptosis by interacting with the E2F1 transcription factor and acting synergistically with it to up-regulate pro-apoptotic proteins BCL2L11/BIM and HRK/Dp5 (PubMed:20605787). Interacts with TRADD following exposure to UV radiation and induces apoptosis by caspase-dependent JNK activation (PubMed:22510408).
AA sequence	AVQISKKRKFVADGIFKAELNEFLTRELAEDGYSGVEVRVTPTRTEIIILATRTQN VLGEKGRRIRELTAVVQKRFGFPEGSVELYAEKVATRGLCAIAQAESLRYKLLG

	GLAVRRACYGVLRFIMESGAKGCEVVVSGKLRGQRAKSMKFVDGLMIHSGDP VNYYVDTAVRHVLLRQGVLGIKVKIMLPWDPTGKIGPKKPLPDHVSIVEPKDEI LPTTPISEQKGGKPEPPAMPQPVPTA
References	"Global, in vivo, and site-specific phosphorylation dynamics in signaling networks." Olsen J.V., Blagoev B., Gnad F., Macek B., Kumar C., Mortensen P., Mann M. Cell 127:635-648(2006)

Certificate of Analysis

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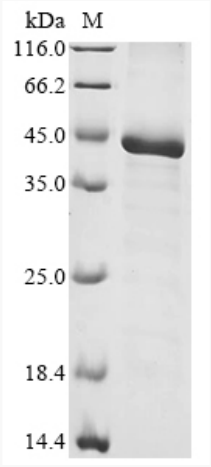
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20℃/-80℃. Our default final concentration of glycerol is 50%. Customers could use it as reference.		
Batch Number	DD05071b1g0		
Nature	Human RPS3-(AA 2-243)-**P23396**-Full-Length of the Mature Protein		
Purification	Affinity purified using IMAC		
Recommended Storage	Short term	2 to 8 ℃, one week from the date of receipt	
	Long term	-20 to -80 ℃, twelve months from the date of receipt	
Form	Lyophilized powder		
Date of detection	2021.11.12		
Test Items	**Specifications**		**Results**
Purity	≥90%, by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.		90%
Molecular Weight	Predicted band size: 42.6 kDa		Observed band size: 45 kDa

Electrophoretic parameters	(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.	
Aseptic Processing	Lyophilized protein has been sterile filtered prior to lyophilization. However, the lyophilization process could potentially compromise sterility and please follow the instruction below if customers need a sterile filtered protein. Please sterile filter reconstituted lyophilized proteins with a 0.22μm filter in a clean bench (or other sterile environment) after reconstitution. Customers could use it as reference.	
Endotoxin Level	<1.0 EU per 1μg of the protein by the LAL method.	pass
Activity	Not tested	
Conclusion	pass	