

Product datasheet for PH300753

RRP4 (EXOSC2) (NM_014285) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	EXOSC2 MS Standard C13 and N15-labeled recombinant protein (NP_055100)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC200753
Predicted MW:	32.8 kDa
Protein Sequence:	>RC200753 protein sequence Red=Cloning site Green=Tags(s) MAMEMRLPVARKPLSERLGRDTRKHLVVPDITITDGTGMRGHGTYMGEEKLIASVAGSVERVNKLCVVK ALKTRYIGEVDIVVGRITVQQRKWKVETNSRLDSVLLSSMNLPGGELRRRSAEDELAMRGFLQEGDL ISAEVQAVFSDGAVSLHTRSLKYGKLGQGVLVQVSPSLVKRQKTHFDLPCGASVILGNNGFIWIYPTPE HKEEEAGGFIANLEPVSLADREVISRLRNCIISLVTQRMMLYDTSILCYEASLPHQIKDILKPEIMEEI VMETRQRLLQEG TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	50 ug/ml as determined by BCA
Labeling Method:	Labeled with [U- ¹³ C ₆ , ¹⁵ N ₄]-L-Arginine and [U- ¹³ C ₆ , ¹⁵ N ₂]-L-Lysine
Buffer:	100 mM glycine, 25 mM Tris-HCl, pH 7.3. Store at -80°C. Avoid repeated freeze-thaw cycles. Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_055100</u>
RefSeq Size:	2034
RefSeq ORF:	879
Synonyms:	hRrp4p; p7; RRP4; Rrp4p; SHRF
Locus ID:	23404
Cytogenetics:	9q34.12



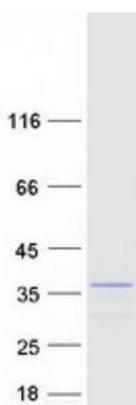
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Summary:

Non-catalytic component of the RNA exosome complex which has 3'→5' exoribonuclease activity and participates in a multitude of cellular RNA processing and degradation events. In the nucleus, the RNA exosome complex is involved in proper maturation of stable RNA species such as rRNA, snRNA and snoRNA, in the elimination of RNA processing by-products and non-coding 'pervasive' transcripts, such as antisense RNA species and promoter-upstream transcripts (PROMPTs), and of mRNAs with processing defects, thereby limiting or excluding their export to the cytoplasm. The RNA exosome may be involved in Ig class switch recombination (CSR) and/or Ig variable region somatic hypermutation (SHM) by targeting AICDA deamination activity to transcribed dsDNA substrates. In the cytoplasm, the RNA exosome complex is involved in general mRNA turnover and specifically degrades inherently unstable mRNAs containing AU-rich elements (AREs) within their 3' untranslated regions, and in RNA surveillance pathways, preventing translation of aberrant mRNAs. It seems to be involved in degradation of histone mRNA. The catalytic inactive RNA exosome core complex of 9 subunits (Exo-9) is proposed to play a pivotal role in the binding and presentation of RNA for ribonucleolysis, and to serve as a scaffold for the association with catalytic subunits and accessory proteins or complexes. EXOSC2 as peripheral part of the Exo-9 complex stabilizes the hexameric ring of RNase PH-domain subunits through contacts with EXOSC4 and EXOSC7. [UniProtKB/Swiss-Prot Function]

Protein Pathways:

RNA degradation

Product images:

Coomassie blue staining of purified EXOSC2 protein (Cat# [TP300753]). The protein was produced from HEK293T cells transfected with EXOSC2 cDNA clone (Cat# [RC200753]) using MegaTran 2.0 (Cat# [TT210002]).