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Riboadenylate Transferase

National Cancer Institute

Source

National Cancer Institute. *Riboadenylate Transferase*. NCI Thesaurus. Code C41038.

Nuclear or cytoplasmic human Riboadenylate Transferases (Poly A Polymerase Family) catalyze template-independent post-transcriptional extension of the 3 prime end of an RNA strand by nonspecific and CPSF/AAUAAA-dependent polyadenylation activity during eukaryotic mRNA maturation. The N-terminal region appears required for nonspecific polymerase activity, while the N- and C-termini are required for specific polymerase activity. Specificity may occur through C-terminus interaction with CPSF, regulated by phosphorylation. The poly(A) reaction involves endoribonucleolytic pre-RNA cleavage at the poly(A) site and synthesis of the poly(A) tail. (NCI)