

Nuclear targeting of proteins

Nuclear proteins (histones, polymerase, etc.) are synthesized on free cytosolic ribosomes. They enter the nucleus through the pores in the nuclear membrane. These pores open to a special signal, which is usually unknown. In the case of the SV40 virus T-antigen, an amino acid sequence was found between positions 127 and 131, which is crucial for the entry of the protein into the nucleus (nuclear localization sequence). Replacing a single amino acid in this region prevents the protein from leaving the cytosol. If this sequence is experimentally inserted into the structure of another protein, this protein will appear in the nucleus even if it is not a nuclear protein.

References

Related Articles

- Translation of membrane and secretory proteins (protein sorting, targeting)
- Translation, post-translational processing of proteins in eukaryotes
- Post-translational modifications and protein targeting

Source

- ŠTÍPEK, Stanislav. *Stručná biochemie : Uchování a exprese genetické informace*. 1. edition. Medprint, 1998. ISBN 80-902036-2-0.

References

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