Rpos

RpoS

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The gene rpoS (RNA polymerase, sigma S, also called katF) encodes the sigma factor sigma-38 (?38, or RpoS), a 37.8 kD protein in Escherichia coli. Sigma factors are proteins that regulate transcription in bacteria. Sigma factors can be activated in response to different environmental conditions. rpoS is transcribed in late exponential phase, and RpoS is the primary regulator of stationary phase genes. RpoS is a central regulator of the general stress response and operates in both a retroactive and a proactive manner: it not only allows the cell to survive environmental challenges, but it also prepares the cell for subsequent stresses (cross-protection). The transcriptional regulator CsgD is central to biofilm formation, controlling the expression of the curli structural and export proteins...

Regular Production Option

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A Regular Production Option (RPO) is a 3-digit standardized code used by General Motors to designate vehicle options and modifications. RPO codes designate how a vehicle is built. They have been used on dealership order forms and in assembly plants since at least the 1950s (e.g., for the Corvette C1). It was originally all numeric and labeled Sales Codes; in 1970 GM switched to the alphanumeric RPO code.

Even base vehicles with few optional features have multiple RPOs, since both standard components (like engine, transmission, and paint color) and extra cost options are coded.

The complete configuration of a GM vehicle (as it exited the factory) can be described by specifying the base model and its RPO codes. Some dealerships are willing to run a VIN and print out its RPOs (with their definitions...

RPO-A Shmel

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The RPO-A Shmel (Russian: ?????????? ???????? ??????? ???-? «?????», lit. 'rocket-propelled infantry flamethrower "Bumblebee"') is a man-portable, single-use, rocket-assisted thermobaric weapon. While its name directly translates to flamethrower (and it is classified as such in Russian military documents), the RPO-A Shmel is more accurately described as a thermobaric weapon.

The Shmel is designed, produced and exported by the Russian Federation and previously by the Soviet Union. It entered service with the Soviet Armed Forces at the end of the 1980s as the successor for the RPO Rys.

RpoS mRNA 5?UTR

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rpoS mRNA encodes for the rpoS stress factor, sigma S (?S or ?38) in Escherichia coli and related bacteria, where DsrA in conjunction with the Sm like RNA binding protein, Hfq promote the translation of this rpoS mRNA. The 5? UTR of the rpoS mRNA forms a self-inhibitory stem loop that shields the shine-dalgarno sequence and therefore inhibits translation. The secondary structure of the 5?UTR was predicted by acetylation of ribose 2?-hydroxyls with NMIA and by using a secondary structure prediction program, RNAstructure. DsrA stimulates rpoS translation by binding in the 5?UTR and causes the stem loop to open, exposing the ribosome binding site.

Site-directed mutagenesis and deletion analysis located an AAYAA motif identified upstream of the stem loop structure which is required for Hfq binding...

RpoN

RpoN), a protein in Escherichia coli and other species of bacteria. RpoN antagonizes RpoS sigma factors. Originally identified as a regulator of genes involved

The gene rpoN (RNA polymerase, nitrogen-limitation N) encodes the sigma factor sigma-54 (?54, sigma N, or RpoN), a protein in Escherichia coli and other species of bacteria. RpoN antagonizes RpoS sigma factors.

Royal Philharmonic Orchestra

The Royal Philharmonic Orchestra (RPO) is a British symphony orchestra based in London, England. The RPO was established by Thomas Beecham in 1946. In

The Royal Philharmonic Orchestra (RPO) is a British symphony orchestra based in London, England.

The RPO was established by Thomas Beecham in 1946. In its early days, the orchestra secured profitable recording contracts and important engagements including the Glyndebourne Festival Opera and the concerts of the Royal Philharmonic Society. After Beecham's death in 1961, the RPO's fortunes declined steeply. The RPO battled for survival until the mid-1960s, when its future was secured after a report by the Arts Council of Great Britain recommended that it should receive public subsidy. A further crisis arose in the same era when it seemed that the orchestra's right to call itself "Royal" could be withdrawn.

In 2004, the RPO acquired its first permanent London base, at Cadogan Hall in Chelsea. The...

RPO

RPO may refer to: Recovery point objective, in business-continuity planning for computing Recruitment Process Outsourcing, a form of business-process

RPO may refer to:

Run-pass option

"Stanford Film Study: Glance Tunnel RPO". The Stanford Daily. Ruiz, Stephen (September 6, 2019). "A casual NFL fan's guide to RPOs". For the Win. Galina, Seth

The run-pass option (RPO) is a type of designed option play in American football in which the offensive team has the ability to either rush or pass the ball depending on the alignment and actions of defensive team. Like the standard read-option, the quarterback is responsible for viewing the actions of a particular defender (the "read man") and makes a decision to hand the ball off to their running back depending on how that defender chooses to act after the snap of the ball. However, unlike the read-option, the quarterback is responsible for making a decision regarding whether or not to throw a play-action pass to a receiver running a designed route, rather than simply the decision to keep the ball and run with it.

Sigma factor

chaperones, proteases and DNA-repair enzymes. ?38 (RpoS) – the starvation/stationary phase sigma factor ?54 (RpoN) – the nitrogen-limitation sigma factor There

A sigma factor (? factor or specificity factor) is a protein needed for initiation of transcription in bacteria. It is a bacterial transcription initiation factor that enables specific binding of RNA polymerase (RNAP) to gene promoters. It is homologous to archaeal transcription factor B and to eukaryotic factor TFIIB. The specific sigma factor used to initiate transcription of a given gene will vary, depending on the gene and on the environmental signals needed to initiate transcription of that gene. Selection of promoters by RNA polymerase is dependent on the sigma factor that associates with it. They are also found in plant chloroplasts as a part of the bacteria-like plastid-encoded polymerase (PEP).

The sigma factor, together with RNA polymerase, is known as the RNA polymerase holoenzyme...

RpoB

The rpoB gene encodes the ? subunit of bacterial RNA polymerase and the homologous plastid-encoded RNA polymerase (PEP). It codes for 1342 amino acids

The rpoB gene encodes the ? subunit of bacterial RNA polymerase and the homologous plastid-encoded RNA polymerase (PEP). It codes for 1342 amino acids in E. coli, making it the second-largest polypeptide in the bacterial cell. It is targeted by the rifamycin family of antibacterials, such as rifampin. Mutations in rpoB that confer resistance to rifamycins do so by altering the protein's drug-binding residues, thereby reducing affinity for these antibiotics.

Some bacteria contain multiple copies of the 16S rRNA gene, which is commonly used as the molecular marker to study phylogeny. In these cases, the single-copy rpoB gene can be used to study microbial diversity.

An inhibitor of transcription in bacteria, tagetitoxin, also inhibits PEP, showing that the complex found in plants is very similar...