# Eureka (EUR) – Scientific Proof-of-Computation Token

## Consensus Mechanism: Eureka Proof (EP)

Eureka (EUR) is a novel cryptocurrency designed to replace meaningless hash-based mining with valuable scientific computation. The core of EUR is its unique consensus mechanism: Eureka Proof (EP), a type of Proof-of-Computation model.

## Mechanism Description

In the EUR system, each new block is generated through a scientific computation task with verifiable value. These tasks may include protein folding, DNA/RNA structure prediction, or solving complex optimization problems in physics or chemistry. The computational results serve as the 'proof', and once verified by a decentralized network of peer evaluators or AI validators, a new block is minted and tokens are rewarded to the contributor.

## Why This Matters

This approach ensures that every drop of energy spent on mining contributes directly to human knowledge. It transforms mining from an environmentally costly arms race into a distributed, productive research network. Rather than generating abstract hashes, EUR miners generate answers.

## Potential Application Domains

- Protein structure prediction  
- RNA folding and decoding  
- Mathematical theorem exploration  
- High-entropy AI model simulations  
- Environmental or climate simulation tasks  
- Any open-access, computation-heavy scientific problem

## Token Philosophy

EUR is not just a currency—it is a statement. It values intelligence, not brute force; collaboration, not waste. It is for those who believe that every watt of computing power should push humanity forward.

## Governance and Scalability

Initial governance will be handled by a technical board to maintain scientific relevance of submitted tasks, eventually transitioning to a decentralized reputation-based system. Scalability will be approached via task sharding and AI-assisted validation.

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