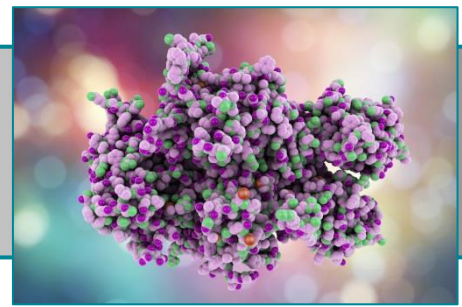


# New self-inducible heterologous protein expression systems

recombinant protein / heterologous protein / gene expression / bacterial self-induction / plasmid / biotechnology

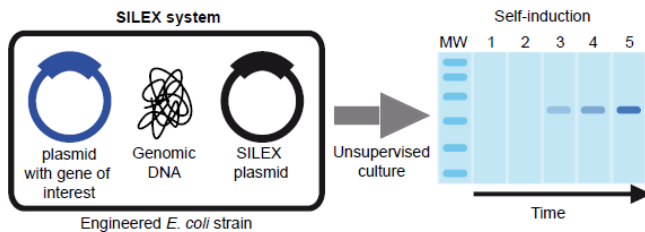


## CONTEXT

The limitations of current recombinant protein production systems include: the use of a transcription inducer and specific medium, low yield, high costs and complex industrial scaling.

## DESCRIPTION

To overcome these difficulties, we have developed a new self-inducible recombinant protein production system. Our technology is based on a SILEX (Self-Inducible EXpression) plasmid able to transfer to a bacteria the ability to induce autonomously heterologous protein expression without the use of a chemical inducer and a specific culture medium. SILEX can be used from microliter to large production scales and is compatible with a wide range of existing plasmids.



## COMPETITIVE ADVANTAGES

- Protein production without cell monitoring and without the use of chemical inducer and specific culture medium
- Easy and fast screening of protein production conditions (medium, temperature, plasmid) in order to optimize its yield
- Application from microliter to large production scales with time and cost savings
- It allows the production of complex proteins (poorly soluble), which is currently difficult with existing systems



## Markets & applications

**Biotechnology** : production of recombinant proteins at laboratory (research community and commercial suppliers) or industrial scale (pharmaceutical, agri-food industry...)



## Development stage

Technology tested i) on over 40 heterologous proteins, ii) with over 10 media and iii) on 96-well plates with volumes as low as 25µl



## Research team

"Centre des Sciences du Goût et de l'Alimentation" (Dijon, France)



## Intellectual property

French patent registered on September 24th, 2014; PCT patent application filed on September 21st, 2015



## Target partnership

Patent licensing or services in protein production

## CONTACT-US

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