

Press release | NIMES, FRANCE—December 12, 2019



## Protéus by Seqens launches SEQENZYM<sup>®</sup>, Enzyme Kits selected among an extensive library of Extremophile Strains for Fast Early Screening of Biocatalysts

### Demand for early stage screening and identification of biocatalysts is growing

Seqens, an integrated global leader in pharmaceutical synthesis and specialty ingredients, announced today the launch of 7 SEQENZYM<sup>®</sup> enzyme kits selected among an extensive panel of extremophile strains from around the world. Developed by Protéus, subsidiary of the Group SEQENS, specialized in biotechnologies, the easy-to-use enzyme kits can accelerate screening of enzymes for molecules synthesis transformations by facilitating rapid assessment. Doing so enables drug developers, chemists and agri-food manufacturers to reach their targets in term of conversion rate, selectivity, operating conditions and kinetics.

In today's pharmaceutical drug development, molecule synthesis often integrates multiple chiral centers, adding greater complexity to the process. Due to recent advances, chemists now often choose enzymatic synthesis over classic chemical synthesis to avoid costly pitfalls such as complex purification and loss of unwanted chiral molecules.

Industrial and academic researchers producing chiral pharmaceutical intermediates, APIs, as well as specialty chemicals, are incorporating these enzymatic technologies at the early stage of process development to fully address the chirality issue and allow shorter synthesis pathways. As well, biocatalysis enables researchers to perform reactions within less drastic conditions, while leading to very high conversion rates often approaching 100% for enantiomeric targets. Overall, process economy is achievable at industrial scale.

“Pharmaceutical chemists and biochemists have expressed a strong need in this field. We are dedicated to accelerating their projects from early research and development stages to competitive production and sales in key markets that also include cosmetics and specialty ingredients.” said Juliette Martin, Managing director at Protéus.

### Enzyme kits available to accelerate industrial developments



The kits will each include a class of enzymes ranging from the most classic (lipases / esterases, alcohol dehydrogenases, transaminases) to more recent generations (ene reductases, dehalogenases, epoxide hydrolases, etc.).

After testing the enzymes on their own, SEQENZYM® Kit users will have the options to:

- Scale-up when the hit is already matching the targeted performance
- Optimize or improve the hit:
  - o Enlarge the screening with additional enzymes from Protéus exclusive collection
  - o Improve the enzyme performance and activity using Protéus patented directed evolution methodologies (EvoSight™ or L-Shuffling™)
  - o Design Of Experiments methodology to identify optimal reaction conditions

The seven enzyme kits will be available for pre order in December 2019, with more to be added as soon as new enzymes are available.

### About Seqens

Seqens is an integrated global leader in pharmaceutical synthesis and specialty ingredients. With 24 manufacturing sites and 3 R&D centers in Europe, North America and Asia, SEQENS develops custom solutions and ingredients for the most demanding industries such as healthcare, electronics, cosmetics, food and homecare. Driven by a culture of excellence and a strong entrepreneurial spirit, SEQENS' 3,200 employees are committed to providing its customers with the highest level of service and product quality while

For more information please see [www.seqens.com](http://www.seqens.com)

Contact Seqens: [press@seqens.com](mailto:press@seqens.com)

### About Protéus

Protéus is a world leader in protein engineering technologies, specialized in developing tailored enzymes. Protéus is a wholly owned subsidiary of the Seqens Group.

In brief:

- An exclusive and diversified strains collection (more than 7000 including micro-algae and extremophiles)
- More than 1,000 strains offering a pool of millions of enzymes (data mining)
- Patented directed evolution technologies (EvoSight™ & L-Shuffling™)
- A multidisciplinary skilled team dedicated to custom enzymatic processes fine tuning for all client's applications
- An expertise for bioprocesses development and scale-up
- Seqens group environment enabling production at large scale of chemicals including biocatalytic steps.



[www.proteus.seqens.com](http://www.proteus.seqens.com)

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For more information please see [www.proteus.seqens.com/en/](http://www.proteus.seqens.com/en/)



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