## Metitica enabling enzyme solutions

# Find your unique Enzyme



## **Employing cutting-edge Technologies to unlock** the Secrets of the unexplored Sequence Space

Industrial biocatalysis is often limited by the lack of optimal enzymes. MetXtra<sup>™</sup> is an exciting opportunity to find your own unique enzyme and step ahead of your competition.

#### We support you to find new enzymes that will get the job done

We are thrilled to present MetXtra<sup>™</sup>, developed by BRAIN Biotech with our customers' needs in mind. MetXtra<sup>™</sup> is the optimal choice for establishing and optimizing existing biocatalytic processes, developing novel enzyme solutions, and generating IP or FTO for you. Unlock novelty by accessing natural diversity through our proprietary metagenomic database harboring 99.8% novel sequences not found in public databases and foster innovation via Al-driven enzyme design. Our experts filter and select the most promising candidates for your application using sophisticated bioinformatics and AI pipelines to maximize success. Based on over 30 years of experience, BRAIN Biotech's enzyme development technologies, diverse set of expression strains and scale up capabilities ensure a fast and reliable path to your enzyme solution from discovery to full commercial scale.

Access the power of MetXtra<sup>™</sup> for your personalized enzyme solution through two great offers.

Tailored Enzyme Discovery is the integrated solution to your challenge. We utilize *MetXtra*<sup>™</sup> *discover* for bioinformatics- and Al-guided selection of enzymes from MetXtra<sup>™</sup> database and *MetXtra*<sup>™</sup> *design* followed by production in diverse production strains and thorough inspection to meet your specific application goals.

**Tailored Enzyme Panels** represents a panel of individually curated enzymes for your investigations. We select candidates from *MetXtra*<sup>™</sup> *database* and *MetXtra*<sup>™</sup> *design*, produce enzyme samples in our *E. coli* platform and deliver these ready-to-screen enzyme panels to you for evaluation.



#### You deserve better than standard

 $\Rightarrow$  You set the challenge, we deliver the solution.

You provide queries, we deliver new enzymes.

#### Technological background

MetXtra<sup>™</sup> consist of 3 major modules:

- MetXtra<sup>™</sup> database arose from a fusion of highly powerful, proprietary sequence databases derived from BRAIN Biotech AG and Biocatalysts Ltd, combined with public sequences. Much of the seemingly infinite biological diversity remains undiscovered, which is why our database is unique in adding 99.8% new proteins and functionality to the known sequence space. Furthermore, it is a growing database to which new metagenomes from Nagoya-compliant sources continue to be added.
- *MetXtra*<sup>™</sup>*design* creates new enzymes beyond natural sequence space based on the desired reaction or reference enzymes.
- MetXtra<sup>™</sup> discover identifies enzymes tailored to your application, combining technologies from our broad sequence and structural bioinformatics and AI toolbox to achieve the optimal solution.

### **Contact us**

### B-R-A-I-N

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