RefoldAll™

→ WHY REFOLDALL™?

A few reasons why **RefoldAll™** is the ultimate choice for protein production:

cost and time efficiency
- high levels of expression in E. coli
- purification of inclusion bodies is straightforward

impressive track record
- greater than 85% success rate
- more than 20 human proteins expressed and refolded

wide range of applicability
- multidomain proteins
- toxic proteins
- proteins sensitive to degrading factors

attractive business models
- feasibility studies
- fee-for-service or FTE basis

→ TECHNOLOGY PLATFORM

RefoldAll™ is a modular protein production service from subcloning and fermentation to protein purification, where renaturation is the key element of the process. With the integration of a combinatorial approach and sophisticated parameter optimization, we offer fast and efficient renaturation screens for your proteins.
TargetEx' proprietary technology, **RefoldAll™**, is under constant improvement through in-house research to further increase yield and applicability.

→ QUALITY CONTROL

TargetEx puts special emphasis on delivering properly folded proteins only. The following quality controls are available to confirm the proper folding and functionality of the proteins: non-reducing SDS-PAGE, Differential Scanning Calorimetry, Circular Dicroism, Dynamic Light Scattering, Surface Plasmon Resonance and functional tests specific for a given protein.

→ TRACK RECORD

Using **RefoldAll™** we have successfully refolded more than 20 human proteins, including serine proteases, complement control and extracellular receptor domains. More than half of these proteins were multidomain proteins containing as many as 7 disulphide bonds (i.e. 14 cysteine residues). Several proteins produced and renatured using **RefoldAll™** at TargetEx were crystallized and their structure determined, while few other proteins were recently used for NMR analysis.

List of available refolded human proteins:

C1r activated catalytic fragment
C1s catalytic fragment
C1r zymogene R463Q mutant fragment
MASP-1 activated catalytic fragment
MASP-2 activated catalytic fragment
MASP 2 zymogene R444Q mutant
MMP-2 active catalytic fragment
MMP-9 active catalytic fragment
MMP-13 active catalytic fragment
KLK-6 active catalytic fragment
MOG fragment
CXCL12

→ PUBLICATIONS

Ambrus, G., P. Gál, M. Kojima, K. Szilágyi, J. Balczer, J. Antal, L. Gráf, A. Laich, B. E. Moffatt, W. Schwaeble, R. B. Sim, and P. Závodszky. 2003. Natural Substrates and Inhibitors of Mannan-Binding Lectin-Associated Serine Protease-1 and -2: A Study on Recombinant Catalytic Fragments. *J. Immunol.* **170**, 1374-1382.

J. Kardos, P. Gál, L. Szilágyi, N. M. Thielens, K. Szilágyi, Zs. Lőrincz, P. Kulcsár, L. Gráf, G. J. Arlaud and P. Závodszky. 2001. The role of the individual domains in the structure and function of the catalytic region of a modular serine protease, C1r *J. Immunol.* **167**, 5202-5208

The 3D structure of MASP-2 CCP2-SP

The MASP-2 CCP2-SP protein, an important component of innate immunity, was produced using **RefoldAll™**

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