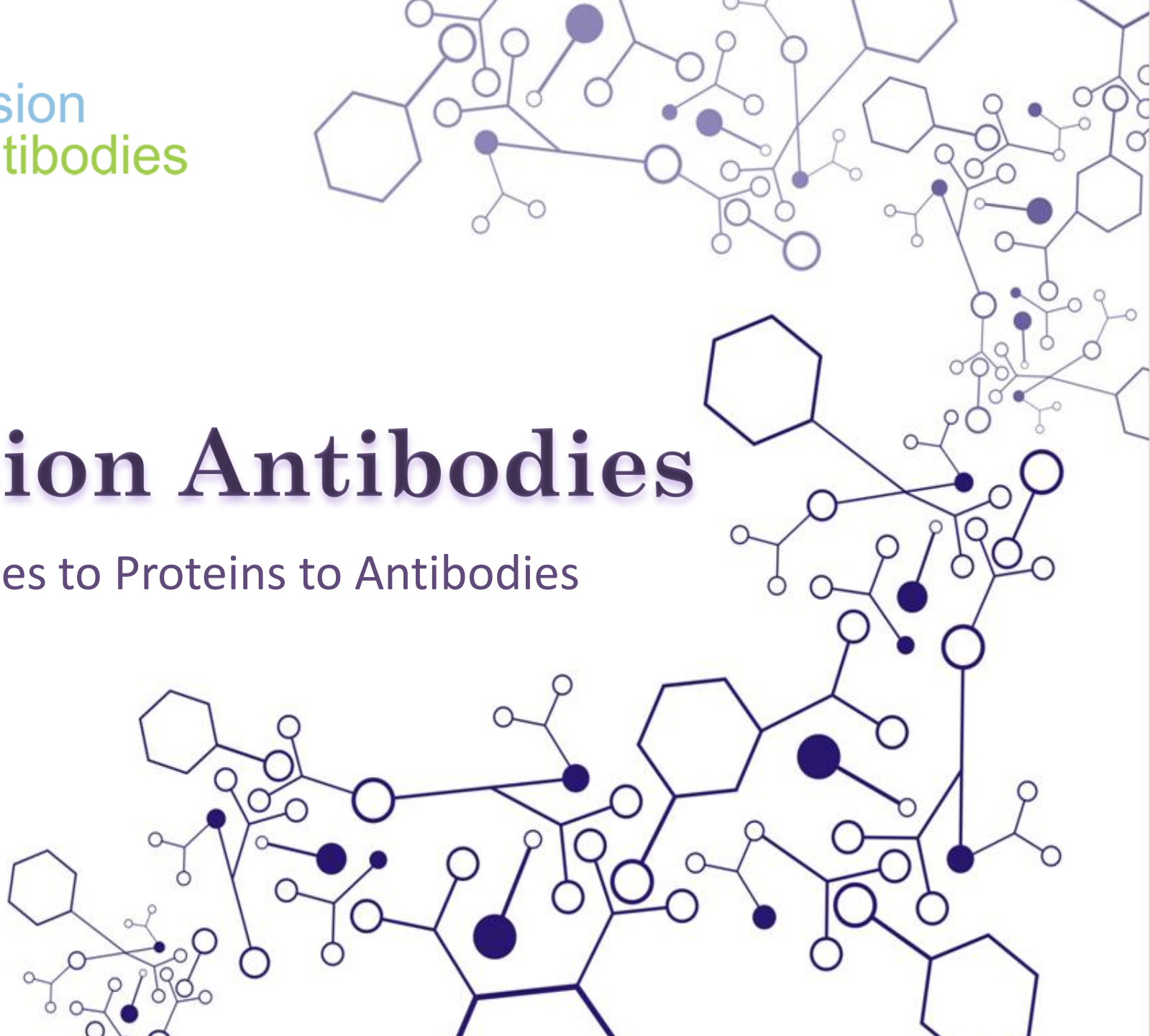




Fusion Antibodies

Genes to Proteins to Antibodies





Fusion Antibodies is a CRO established in 2001 as a spin-out from Queen's University Belfast. The company building is situated in a charming area of Springbank Industrial Estate in Belfast. Fusion has won a host of awards for its leading-edge technology platform FET (Fusion Expression Technology) which accelerates the validation of targets from DNA sequence through to recombinant protein expression. Fusion Antibodies offers a range of world class services in antibody production, development, characterization and optimization. They range from antigen expression and purification, followed by antibody production and sequencing, right through to humanization and supply of material for proof of concept studies

Why Fusion Antibodies?

Customer
Focused

Milestoned
Payments

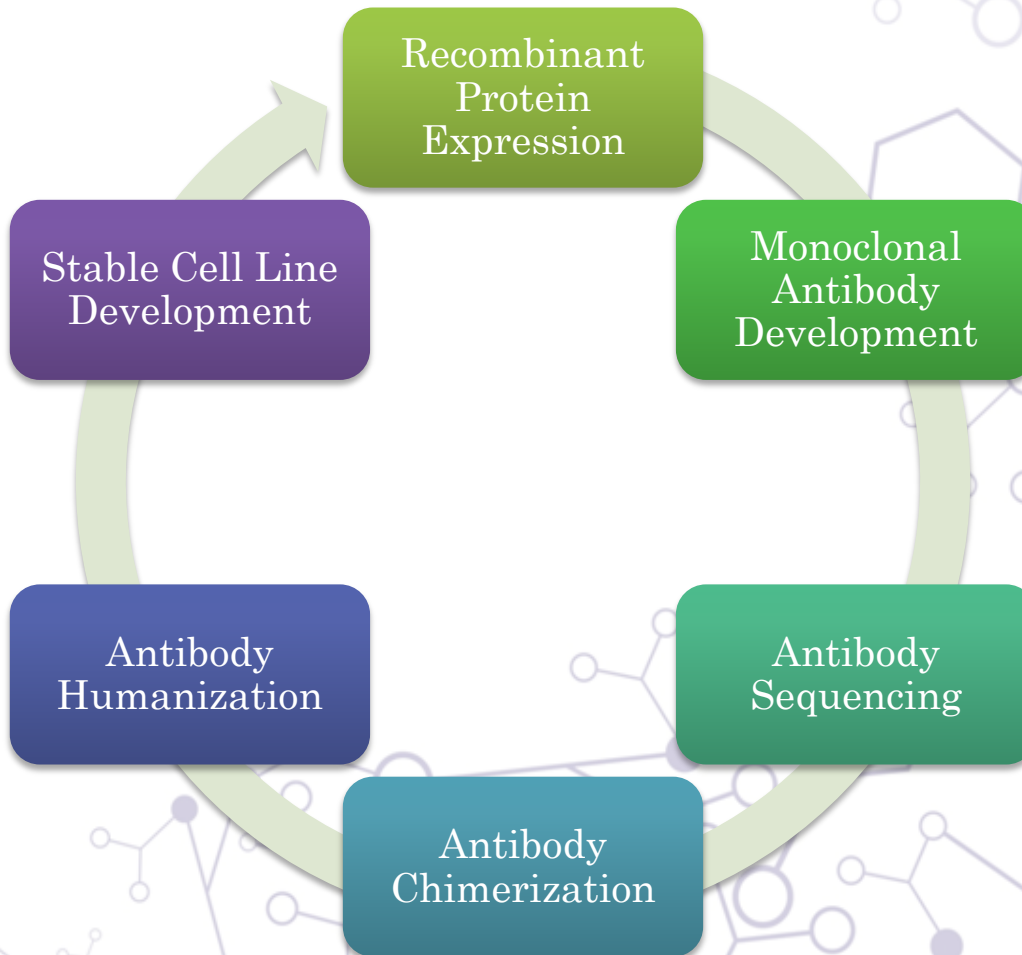
12 years
experience of
Antibody drug
development

High Quality
outcomes for
the client

European
based
limited
company

Unrivalled
experience in
Antibody
Engineering

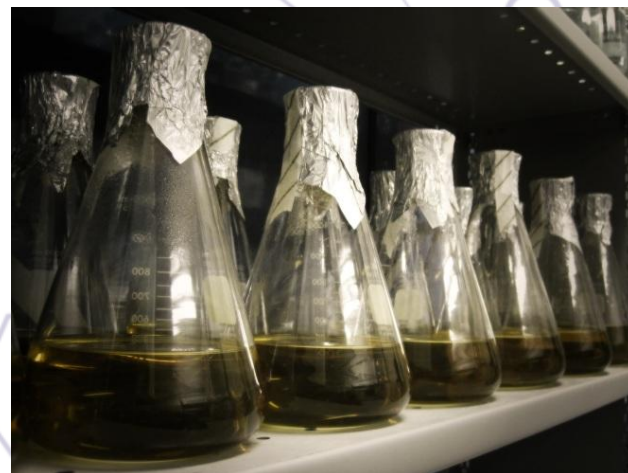
Our Services



Recombinant Protein Expression The FET™ Bacterial Platform

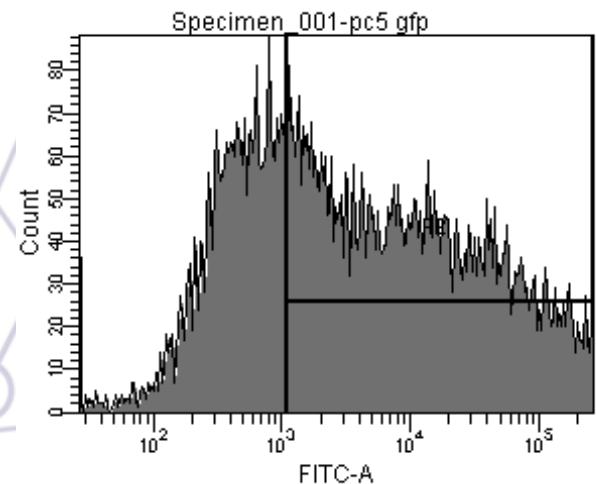
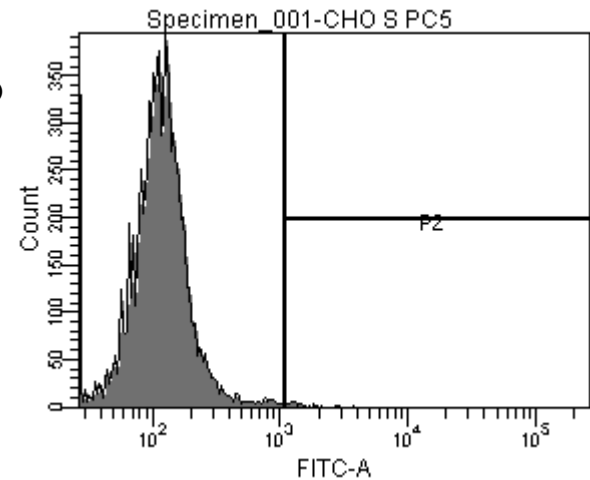
FET™ is a multi-parallel bacterial screening platform using a number of proprietary vector systems

- High level expression of hard to-produce proteins
- High solubility of target proteins
- Excellent bioactivity
- Over 550 proteins made
- <5EU/mg
- Range of purification methods available
 - IMAC
 - Affinity
 - SEC
- Native conditions or Inclusion Body refolding



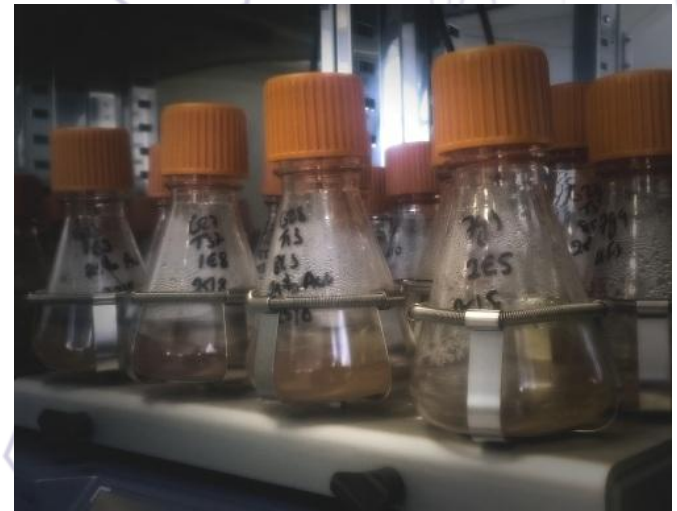
FAbCHO™ is a highly developed process customized to requirements in a mammalian system.

- Rapidly go from cloned gene to large quantities of protein in 14 days
- Obtain fully post-translationally modified and active mammalian proteins
- >70% Transfection of CHO suspension cells
 - GFP control
 - 5-20mg IgG/Litre



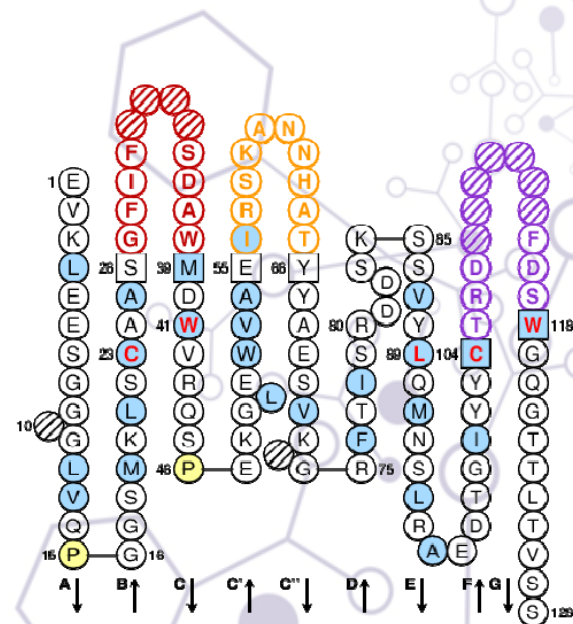
Fusion Antibodies' Antibody Development Service produces high quality hybridoma cell lines.

- 12+ Years of Monoclonal Antibody Development
- From as little as 3 months time-scale
- Over 500 cell lines produced
- Expert immunogen design maximises affinity and specificity
- Wide range of follow up analysis and characterisation techniques available
- Seamless pathway into sequencing and humanization



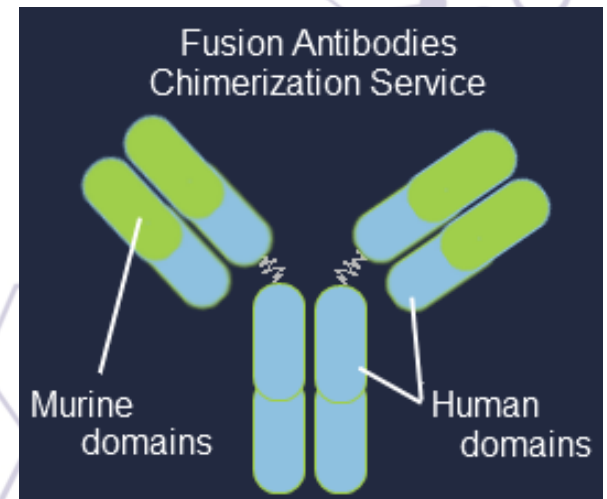
- Unrivalled quality of service
- Guaranteed service
- CDR identification
- Aberrant Light Chain Identification
- Detailed analysis and report
- >600 projects completed to date

F.A.A.S.T Sequencing	vH and vL only (Rapid 1 week turnaround)
Standard Sequencing:	vH and vL only
5'RACE sequencing:	vH, vL and Leader sequence
Full Antibody Sequencing:	vH, vL, Leader and constant domains



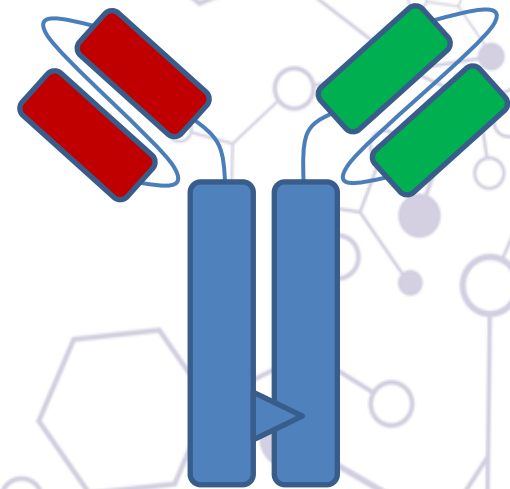
Fusion Antibodies' Antibody Chimerization Service allows you to rapidly convert the species isotype of your antibody to validate its potential in various therapeutic or diagnostic assays.

- Murine variable domains sequenced from your hybridoma cell line
- Combined with human constant domains
 - *Reduce the immunogenicity of the antibody in vivo.*
 - *Many constant domains available*
 - *Optional Antibody Sequencing service available*
 - *Compare effector functions*
 - *Optimize allotype*



Fusion Antibodies has developed a range of engineered antibody technologies to produce custom configurations to suit your requirements

- Antibody class switching
- ScFv's
- Fab Fragments
- Mini-bodies
- Tri-bodies
- Bi-Specific Antibodies



Our Bi-Specific Antibody service uses scFv technology to combine antibodies

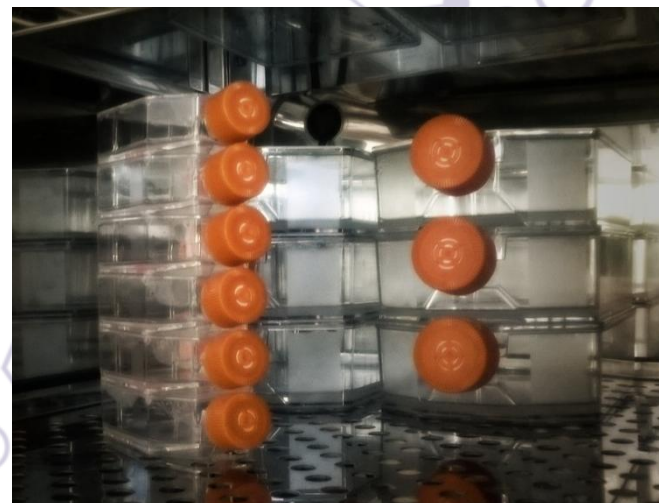
Fusion Antibodies provides **Royalty Free** Antibody Humanization of Monoclonal Antibodies. Using our next generation *in silico* CDRx™ technology we have modernized the traditional CDR grafting technique. We identify and combine the essential sequences from antibody variable domains into human donor sequences (not germline) to create a panel of full length humanized antibodies for expression. Fully humanized monoclonal antibodies are an essential step in the progression of your drug to the clinic and the in-house expertise at Fusion Antibodies ensures its success.

- Modernized Version of Traditional CDR grafting
- T-Cell epitope screening
- Chimeric control included
- 10+ constructs in as little as 8 weeks
- Patented process with no Royalty Fee
- 2-fold Affinity Guarantee



Fusion Antibodies specialize in proof of concept cell line development

- Research and manufacturing of stable cell lines
- High expression levels of your protein
- Suspension cultures and serum free media
- Full testability to meet regulatory requirements
- Optimized selection and screening processes to ensure identification of highly expressing clones
- Stable cell line easy transferable to cGMP scale production

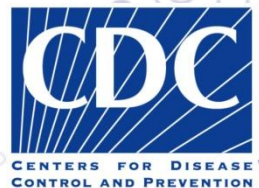


Fusion Antibodies also work in partnership with a range of carefully selected high quality partners who provide services which complement ours.

This relationship with our partners allows us to deliver a **complete package** and tailor a solution to your requirements.

- Biacore analysis
- Precision Epitope mapping
- Mass Spec
- DSC Analysis
- cIEF Analysis
- **Plus Many more**





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