



## Biological activity

### Introduction

Gibco™ PeproTech™ recombinant proteins are known for their exceptional quality and reliability. Bioassay testing is performed on each lot of proteins manufactured, and these results must meet stringent QC standards for release. In addition to lot-to-lot reliability, PeproTech recombinant proteins show consistent bioactivity across the various grades available: research use only (RUO), animal origin-free (AOF), and good manufacturing practice (GMP). These proteins also stand up to those of other suppliers and to the international standards of the World Health Organization (WHO), as presented in the following graphs.

### Product details and features

The four representative Gibco™ PeproTech™ recombinant proteins mentioned here—human EGF, human FGF-basic, human IL-2, and human IL-6—demonstrated bioactivities tested for the following attributes:

### Lot-to-lot consistency

One of the several quality control tests run on newly manufactured lots of recombinant proteins is testing on relevant cell lines. Each lot of protein manufactured is tested for biological activity against previously manufactured material. This testing allows us to confirm that biological activity remains consistent from lot to lot to help ensure equivalent performance across your work. Figure 1 shows PeproTech recombinant protein lots tested against each other.

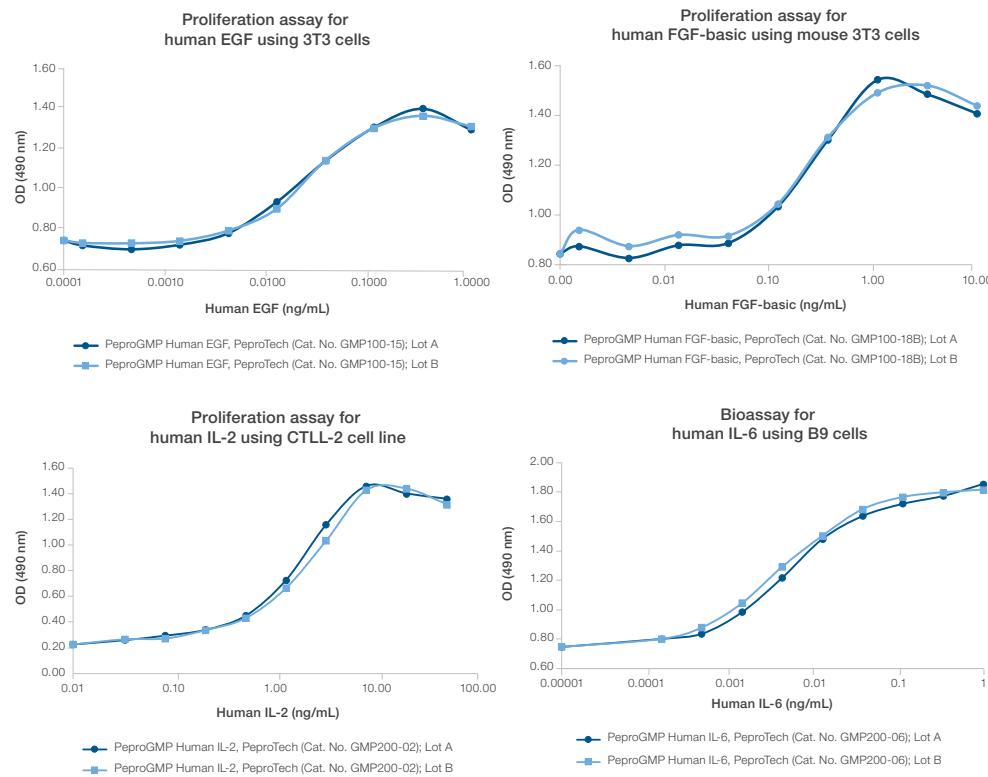
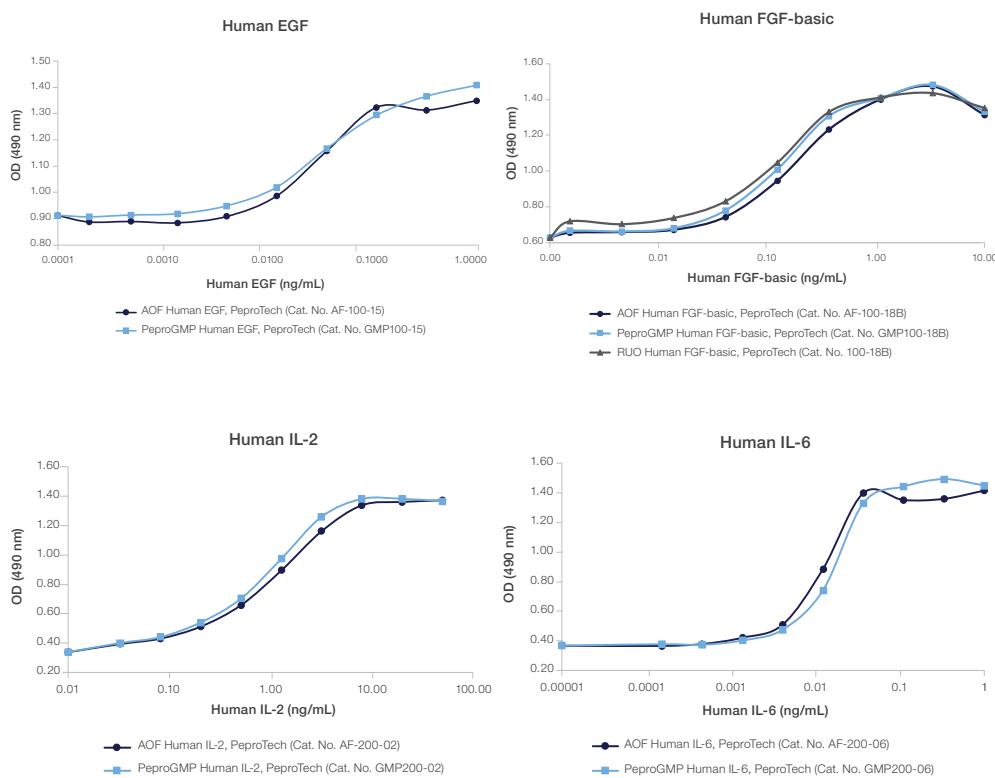


Figure 1. Lot-to-lot consistency in bioactivity of PeproTech recombinant proteins.

## Grade-to-grade consistency

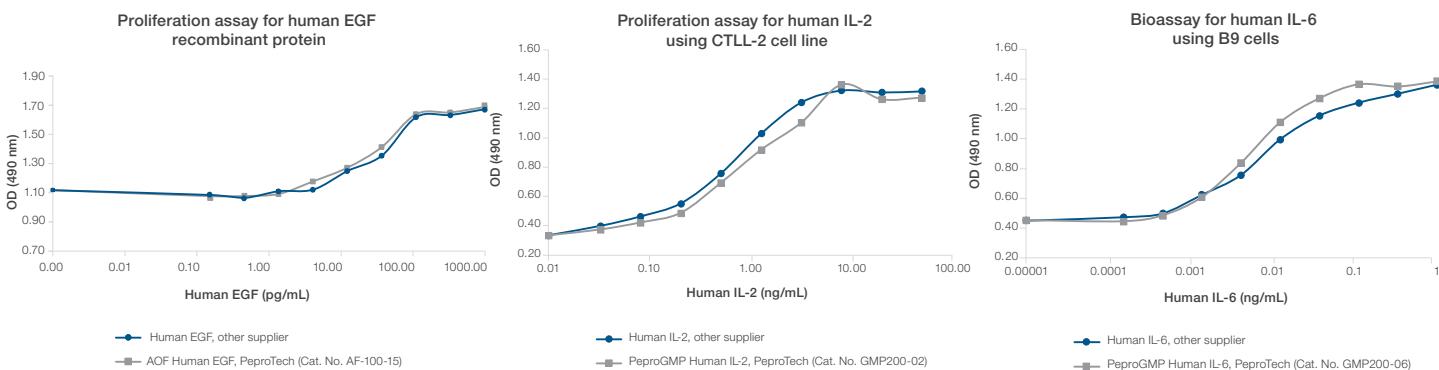
PeproTech recombinant proteins are available in three product grades—RUO, AOF, and GMP. When using proteins of different grades for your research, you can depend on the bioactivity of PeproTech proteins to remain consistent. All grades of proteins exhibit comparable activity, as seen in Figure 2.



**Figure 2. Consistent bioactivity of PeproTech recombinant proteins across grades—RUO, AOF, and GMP.**

## Bioactivity compared to other suppliers' products

Our scientists pride themselves in manufacturing exceptional-quality proteins, with some of the highest activity levels found on the market. Highly active proteins translate to needing less material for your assays, resulting in savings for your lab. PeproTech recombinant proteins are comparable in activity to other suppliers' products, making it more seamless to transition to PeproTech proteins. Figure 3 shows PeproTech recombinant proteins compared against another supplier's recombinant proteins.



**Figure 3. Bioactivity comparison of PeproTech proteins vs. proteins from another supplier.**

## Bioactivity compared to international WHO standard

Where possible, we obtain international unit (IU) values for PeproTech recombinant proteins through multiple side-by-side comparisons of our products against the analogous WHO reference standard within our biological activity assay. Performing multiple comparison tests allows us to account for any outliers due to possible variations within the assay (e.g., product, handling, assay protocol, etc.). Using the results of these comparisons, we can provide reliable quantification of our products' activity in relation to the activity of the WHO reference standard. Figure 4 shows bioactivity data of PeproTech recombinant proteins against the international WHO standard protein.

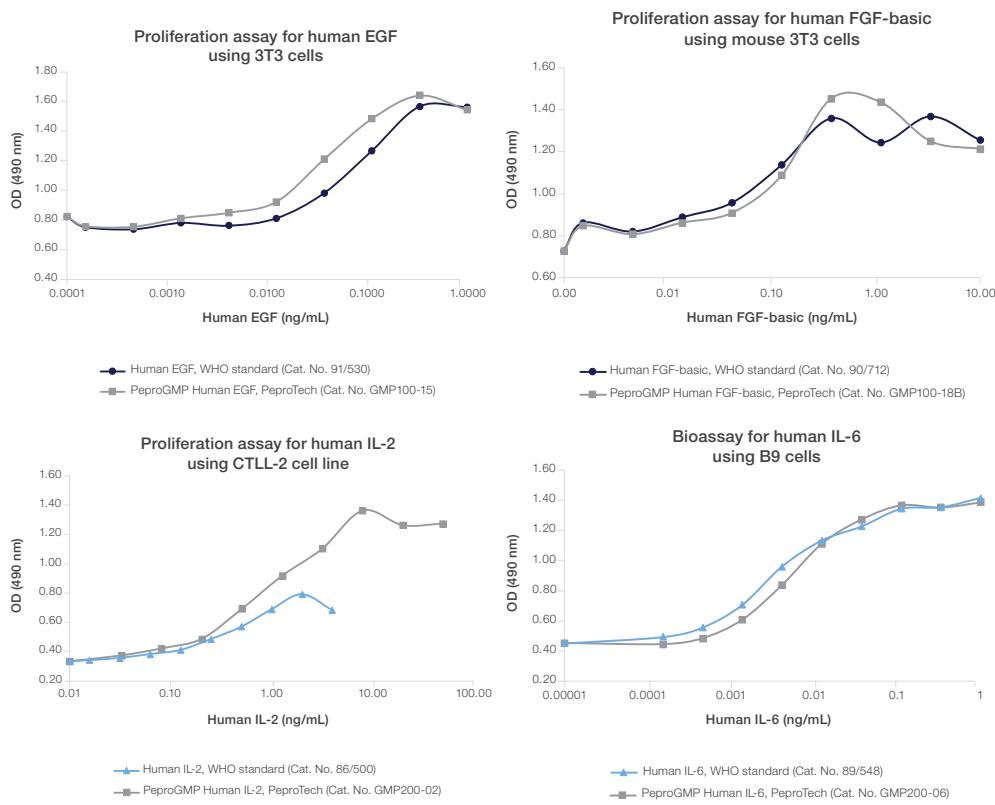


Figure 4. Bioactivity of PeproTech proteins against WHO standard proteins.

## Summary

Thermo Fisher Scientific offers hundreds of PeproTech recombinant proteins for all of your research needs. Using a highly active recombinant protein means spending less on subsequent protein purchases and more on the items your lab needs. We are confident that the quality of PeproTech recombinant proteins will prove comparable to other supplier's products. Be sure to use the links below to find your protein of interest, and discover more about the activity and quality standards to which we hold our recombinant proteins.

For comprehensive information about our products, visit our website at [thermofisher.com/peprotech](http://thermofisher.com/peprotech).

Our website is an easy way to get up-to-date information on new products, references, technical documents, and much more. For your assurance, our website provides secure online ordering.

## PeproTech recombinant proteins

Product	Cat. No. by product grade		
	RUO	AOF	GMP
Recombinant Human EGF	–	17883153	30275500
Recombinant Human FGF-basic	17890953	17883543	GMP100-18B-25UG
Recombinant Human IL-2	17820813	17833333	30275964
Recombinant Human IL-6	17840203	17853413	30275007

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