



Recombinant antibody to hGDF15, clone 4G12, hIgG1

Catalogue #	R1-213-100
Immunogen:	Recombinant hGDF-15 protein
Immunogen Description:	Recombinant human GDF-15 protein produced by CHO-based Icosagen Cell factory Ltd. proprietary suspension cell line.
Alternative Names:	Growth differentiation factor 15, MIC-1, Macrophage inhibitory cytokine-1
Uniprot ID:	Q99988
Clonality:	Human monoclonal
Clone:	4G12
Class:	hIgG1
Reactivity:	Binds to human GDF-15 protein.
Dissociation constant (K_D):	Summary of antibody screening to soluble recombinant GDF-15 using an Octet system. KD, M: 1,26E-09
Application:	ELISA, CLIA
Protocol:	Monoclonal antibody working amount has to be established practically for each particular antigen and assay format.
Purification:	Protein A affinity chromatography followed by gel filtration
Purity:	>90%
Concentration:	1 mg/ml
Buffer:	PBS pH 7.4
QC:	Simply Blue Safe stained SDS-PAGE, analytical HPLC-SEC, Octet binding.
Related Products:	Human GDF15 antibody clone 4G12 has been identified as a recommended capture antibody with clone 1B2 (cat# R1-212-100). The antibody pair 4G12-1B2 was additionally validated using

pooled human serum sample.

Shipping:

Shipped on dry ice.

Storage:

Store in -65...-85 °C. Avoid multiple freeze-thaw cycles.

Background:

Growth differentiation factor 15 (GDF-15) is a cytokine that belongs to the transforming growth factor beta (TGF-?) superfamily. It is expressed in various tissues throughout the body, including the liver, placenta, and heart, and plays a pivotal role in regulating cell growth, differentiation, and survival. Elevated levels of GDF-15 have been associated with a variety of disease states, including cancer, cardiovascular disease and chronic kidney disease. In cardiovascular disease, increased levels of GDF-15 have been linked to an elevated risk of adverse outcomes, including heart failure, atherosclerosis, acute myocardial infarction, and acute coronary syndrome.

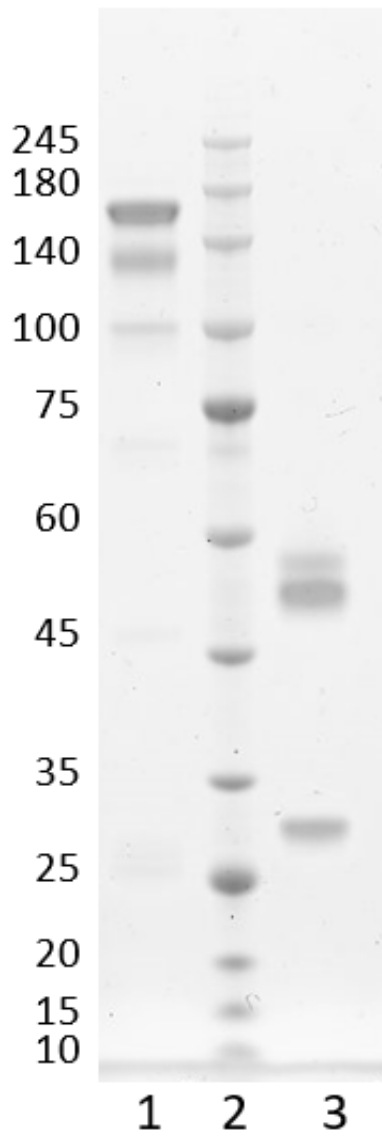


Figure 1. Simply Blue Safe stained SDS-PAGE analysis of recombinant antibody to hGDF15, clone 4G12.4-12% gel is used for analysis. Lane 1. Recombinant antibody to hGDF15, clone 4G12 (-DTT) Lane 2. Size marker Lane 3. Recombinant antibody to hGDF15, clone 4G12 (+DTT)

Peak Table

RT	Area	Area %
8.436	15.8	0.59
8.840	2679.5	99.41

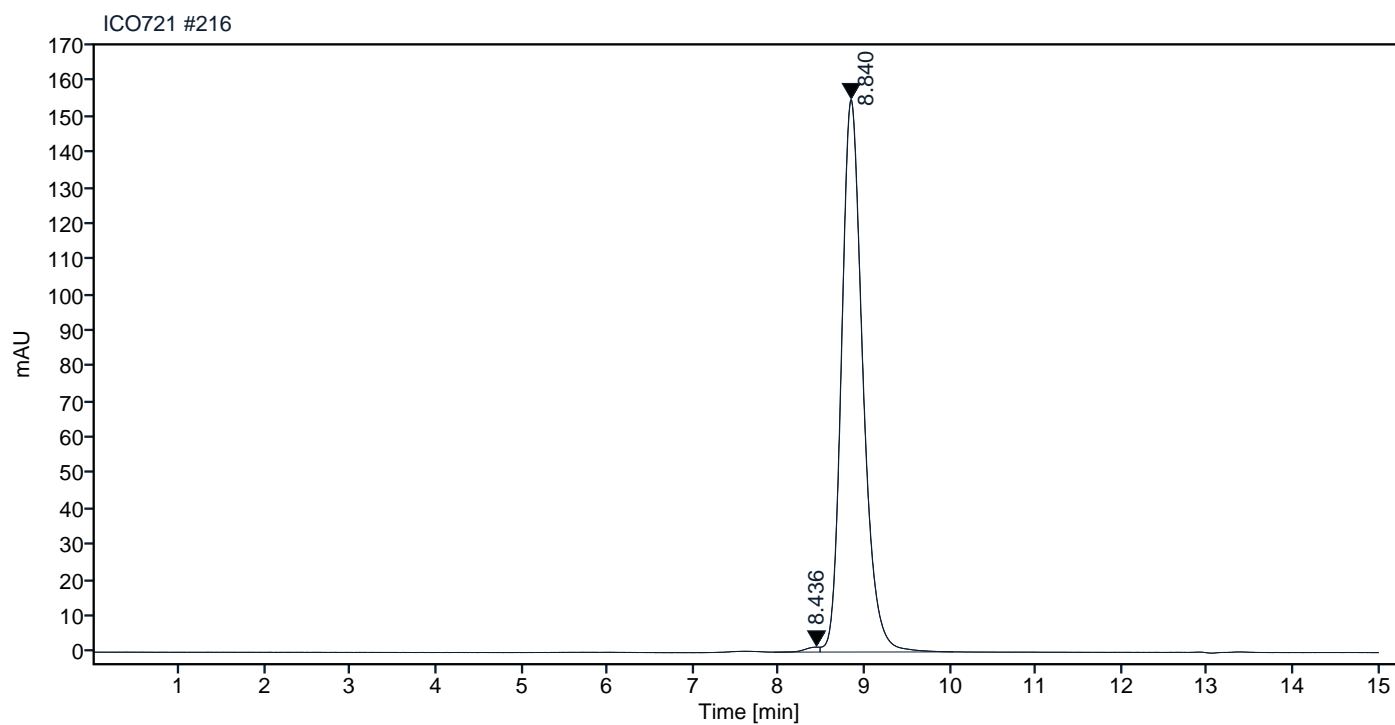


Figure 2. HPLC analytical SEC for final product.

Peak Table

RT	Area	Area %
7.588	16.5	0.67
8.841	2446.2	99.33

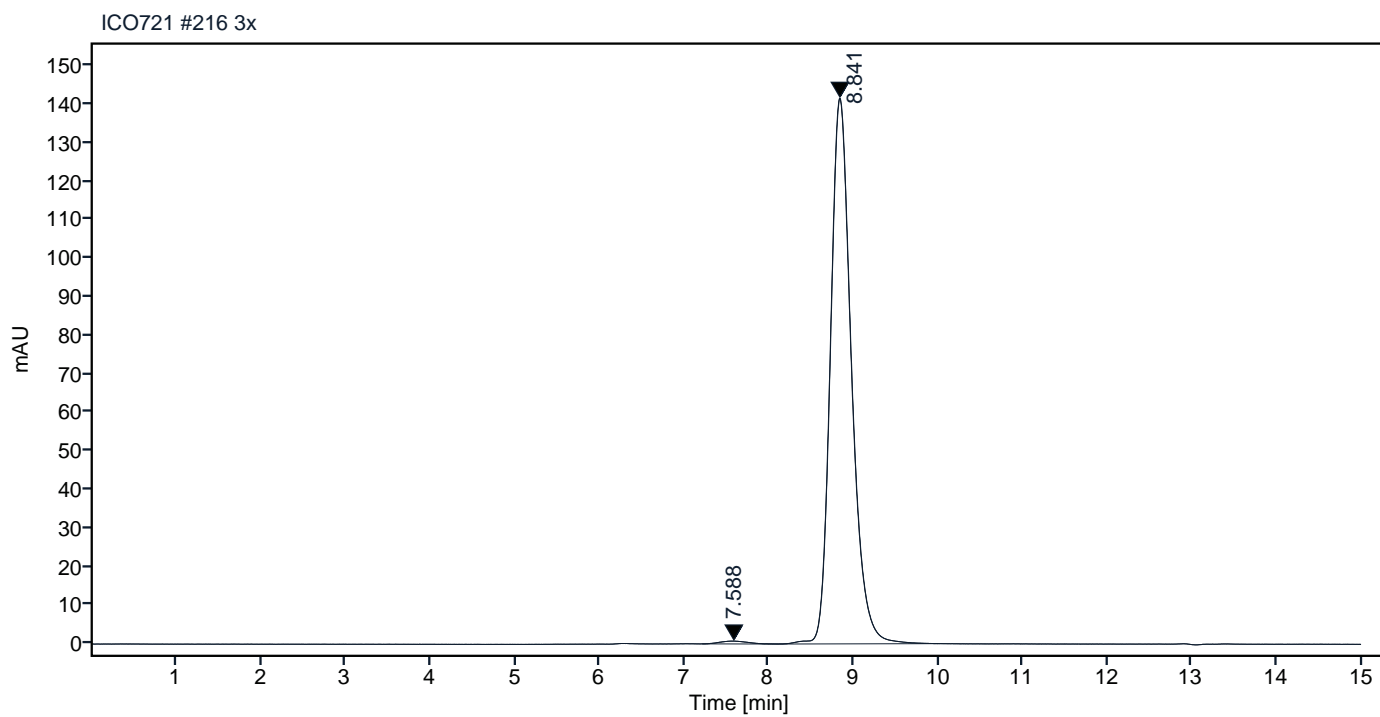


Figure 3. HPLC analytical SEC after 3 freeze-thaw cycles.

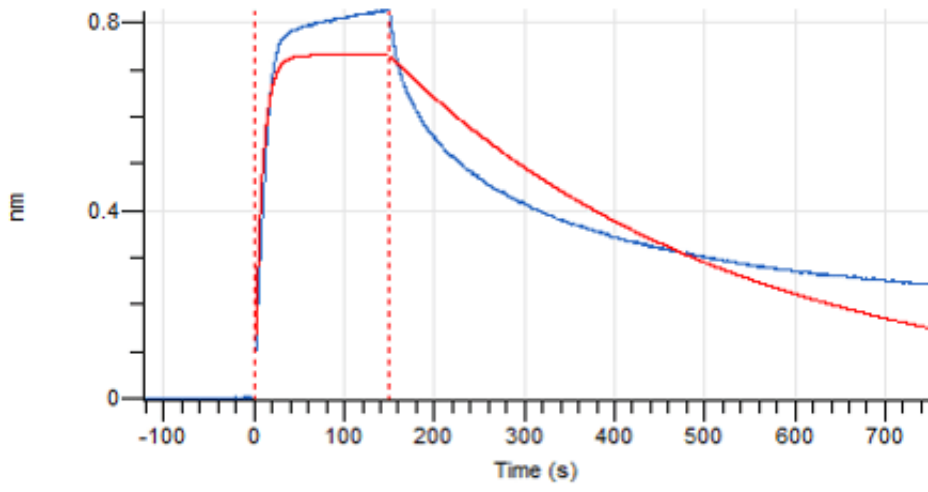


Figure 4. Octet BLI analysis, antibody was loaded on sensor for capture of hGDF-15 protein.