



## **pFB-CHlg-mG2ae2: Mouse IgG2a Mammalian Expression Vector with Increased ADCC and CDC**

SKU#: AFV-11

### **Product Overview**

pFB-CHlg-mG2ae1 is a cloning vector that expresses the mouse IgG2a heavy chain constant region with **S239D / I332E** mutations. It is a constitutive mammalian expression vector designed to deliver exceptionally high levels of antibody expression. This circular vector features an enhanced, full-length CMV promoter and other expression elements that typically enable higher expression levels. It can be used in suspension-adapted cells, such as Expi293F™ and ExpiCHO™, for transient protein expression. Additionally, it can serve as a Geneticin®-selectable expression plasmid for engineering stable cell lines. The vector carries an ampicillin resistance gene.

### **Characteristics**

Fc engineered mouse IgG2a expression with **S239D / I332E** mutations:

- Increased binding to FcγRIIIa
- Increased ADCC

### **Specifications**

<b>Antibiotic Resistance</b>	Ampicillin (Amp <sup>R</sup> )
Constitutive or Inducible System	Constitutive
Delivery Type	Transfection
Promoter	CMV
Product Type	Mammalian Expression Vector
Cloning Method	Restriction Enzyme (5'-AgeI; 3'-XhoI) or Homologous Assembly

### **Contents & Storage**

- 5.0 µg of **pFB-CHlg-mG2ae2** in Tris-EDTA buffer
- Store at -20°C. Vectors are guaranteed stable for 6 months when properly stored.

### **Materials required for Fc engineered antibody generation**

- pFB-CLlg-mk or pFB-CLlg-ml1 or pFB-CLlg-ml2 plasmid expressing the constant region of the mouse kappa or lambda light chain.

### **Steps for Fc engineered antibody generation**

- Cloning your heavy chain variable region (VH) into **pFB-CHlg-mG2ae2** vector to make heavy chain expression plasmid;
- Cloning your light chain variable region (VL) into pFB-CLlg-mk or pFB-CLlg-ml1 or pFB-CLlg-ml2 vector to make light chain expression plasmid

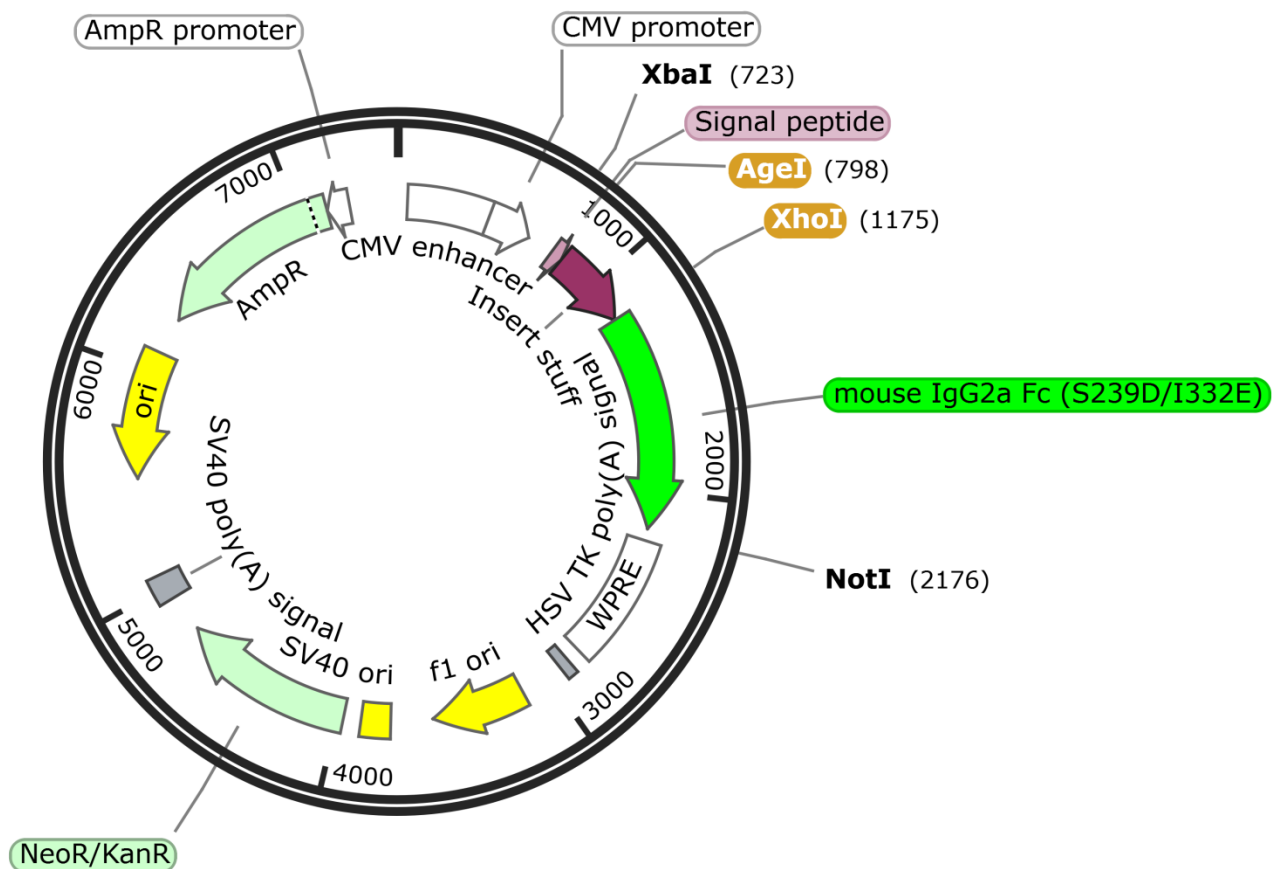


- Co-transfecting both heavy chain and light chain expression plasmids into your desired mammalian cell (such as CHO, HEK293) for Fc engineered antibody production.

## References

1. Lazar et al., 2006. Engineered antibody Fc variants with enhanced effector function. Proc. Natl. Acad. Sci. USA 103, 4005–4010.

## Vector map



## AFV-11 mouse IgG2ae2 increased ADCC and CDC

7453 bp