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# Antibody Expression Vector

## pFB-CHIg-hG1: Human IgG1 Mammalian Expression Vector

Catalog#: AEV-01

### Product Overview

This vector 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.

### Specifications

Antibiotic Resistance	Ampicillin (AmpR)
Constitutive or Inducible System	Constitutive
Delivery Type	Transfection
Promoter	CMV
Product Type	Mammalian Expression Vector
Cloning Method	Restriction Enzyme (5'-Agel; 3'-XhoI) or Homologous Assembly

### Contents & Storage

- 20 µg of pFB-CHIg-hG1 in Tris-EDTA buffer
- Store at -20°C. Vectors are guaranteed stable for 6 months when properly stored.

### Materials required for antibody generation and isotype switching

- pFB-CLIg-hk or pFB-CLIg-hl plasmid that expression the constant region of the human kappa or lambda light chain.

### Vector usage



- **Entire monoclonal IgG antibodies production:** cloning your heavy/light chain variable regions in the cloning sites to preserve the integrity of the heavy/light chain constant region;
- **Isotype switching:** pFB-CHlg-hG1 with pFB-CLlg-hk or pFB-CLlg-hl plasmids are designed to switch a monoclonal antibody from one isotype to another, therefore, maintaining the generated new antibodies with the same antigen affinity (epitopes) but with different effector functions (enhanced or reduced or even disabled ADCC and CDC).

### Vector map

