

PRODUCT INFORMATION

Applications	Antibody internalization labeling reagent
Detection method	Cell viability detection with MTT, CCK8, or CTG
Excitation-Emission	N/A
Molecular Weight	The protein has a predicted MW of 68.9 kDa after removal of the signal peptide.
Formulation & Reconstitution	Lyophilized from sterile PBS, pH 7.4. Normally 5 % - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.
IgG type	The protein can be used for human IgG1, IgG2, IgG3, IgG4, rabbit IgG, mouse IgG1, IgG2a, IgG2b and IgG3.
Recommended Dilutions	We recommend test antibody to mix with AME100004 at 1:2 in molar ratio
Description	Recombinant DT3C (Diphtheria toxin and spg 3C domain) Protein with N-terminal 6×His tag
Delivery	in Stock
Storage & Shipping	Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing).Lyophilized proteins are shipped at ambient temperature.
Background	DT3C is a powerful tool used in the field of antibody-drug conjugates (ADC) for in vitro drug internalization. This is particularly critical in the field of drug development where understanding how antibodies are internalized by cells can influence the efficacy of the drug. The DT3C protein is composed of two parts: 1. Diphtheria toxin (DT) lacking the receptor-binding domain but containing the C1, C2, and C3 domains. The DT component is a potent toxin that can inhibit protein synthesis and cause cell death when internalized; 2. The C1, C2, and C3 domains of Streptococcus protein G (3C), which can bind to the Fc portion of IgG antibodies. When a monoclonal antibody is binding with DT3C, the resulting mAb-DT3C complex can be used to assess the ability of the antibody to be internalized by cells. If the mAb-DT3C conjugate reduces the viability of cancer cells, it indicates that the monoclonal antibody has been successfully internalized, making it a potential candidate for ADC development.
Usage	Research use only



K562-GPRC5D

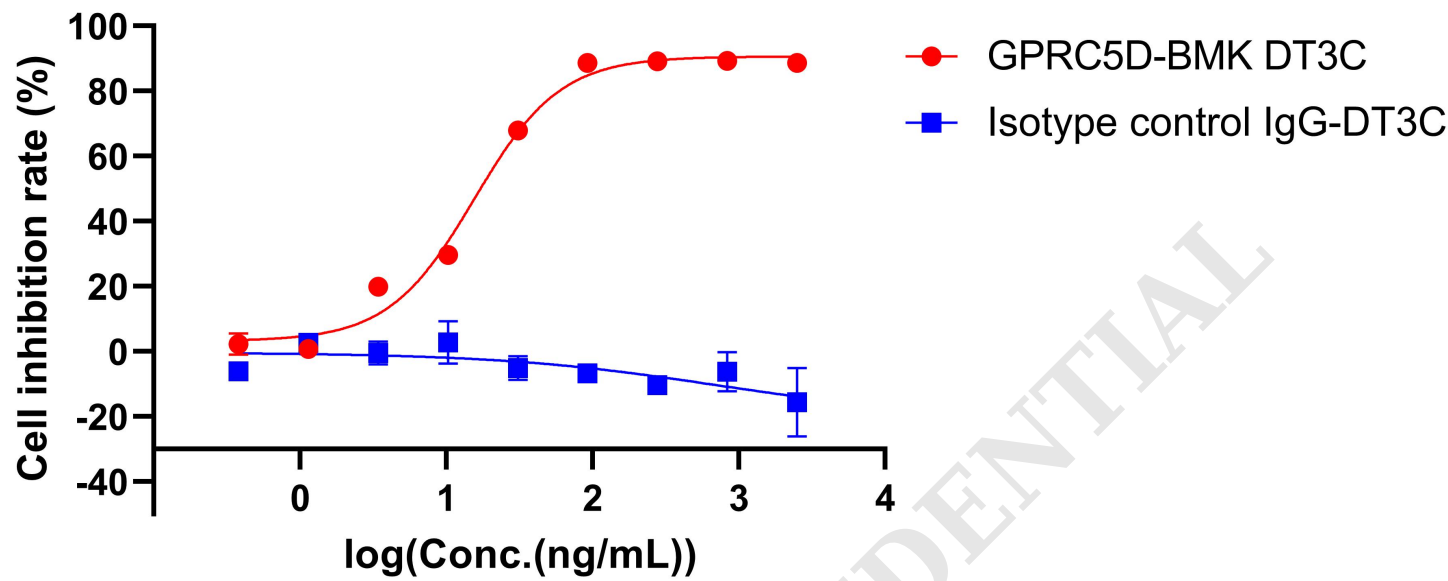


Figure 1. Cell inhibition rate of K562-GPRC5D detected by CCK8 method. The IC50 of GPRC5D ADC BMK (BME100187) is 15.55ng/ml, indicating specific internalization.

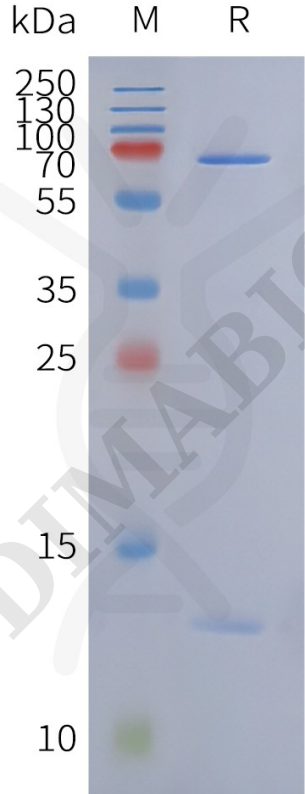


Figure 2. Corynebacterium beta DT3C Protein, His Tag on SDS-PAGE under reducing condition.

