重组DT3C蛋白

Recombinant DT3C (Diphtheria toxin & spg 3C domain) protein

目录号 Catalog Number	530421
同用名 Synonyms	Diphtheria toxin & spg 3C domain
表达系统 Expression System	E. coli

产品信息

性状 Form	冻干粉末 Lyophilized powder
组分 Formulation	Lyophilized from sterile 20mM Tris-HCl, 150mM NaCl, pH 8.0
纯度 Purity	>95%, by SDS-PAGE with Coomassie Brilliant Blue staining.
内毒素 Endotoxin	<1.0 EU/μg
稳定性 Stability	Samples are stable for up to twelve months from date of receipt at -70℃
蛋白构建 Protein Construction	DNAs encoding 33-417aa (P00588) & 291-497aa (P19909) were fused with N-terminal 6His tag

保存与运输

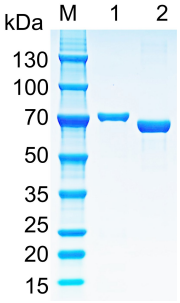
复溶 Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
储存 Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
运输 Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

功能描述

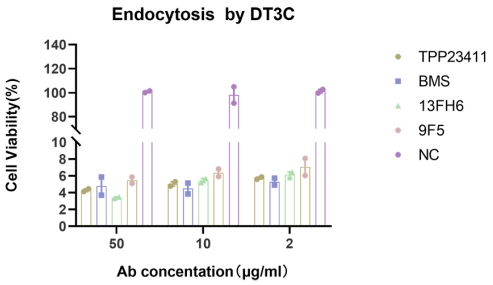
研究背景 Background	DT3C is a recombinant fusion protein composed of diphtheria toxin (DT) lacking its receptor-binding domain, fused to the C1, C2, and C3 IgG-binding domains of Streptococcal protein G. It acts as a versatile tool for evaluating antibody internalization, functioning like an antibody-drug conjugate (ADC) in vitro. When bound to a monoclonal antibody (mAb), DT3C is internalized into target cells, where its catalytic domain induces cytotoxicity, enabling rapid screening of internalizing antibodies for therapeutic development.

验证数据

SDS-PAGE



Recombinant DT3C (Diphtheria toxin & spg 3C domain) protein
Lane 1: DT3C, Lane 2: BSA



ADC endocytosis by DT3C
Incubate the antibody with DT3C (4 μg/mL) at 37°C for 30 min. Test the ADCs at the following concentrations: 50, 10, and 2 μg/mL. Culture the treated cells in an incubator for 2 days