# abcam

# Product datasheet

# Recombinant Bacteriophage P1 Cre recombinase protein ab134845

1 References 1 Image

**Description** 

Product name Recombinant Bacteriophage P1 Cre recombinase protein

Purity > 90 % SDS-PAGE.

ab134845 is chromatographically purified.

**Expression system** Escherichia coli

Accession P06956

Protein length Full length protein

Animal free No

**Nature** Recombinant

Species Bacteriophage P1

Sequence MASMTGGQQM GRGHHHHHHG NLYFQGGEFP

PKKKRKVSNL LTVHQNLPAL PVDATSDEVR KNLMDMFRDR QAFSEHTWKM LLSVCRSWAA WCKLNNRKWF PAEPEDVRDYLLYLQARGLA VKTIQQHLGQ LNMLHRRSGL PRPSDSNAVS LVMRRIRKEN VDAGERAKQA LAFERTDFDQ

VRSLMENSDR CQDIRNLAFL GIAYNTLLRI AEIARIRVKD ISRTDGGRML IHIGRTKTLV STAGVEKALS LGVTKLVERW

ISVSGVADDP NNYLFCRVRK NGVAAPSATS
QLSTRALEGI FEATHRLIYG AKDDSGQRYL
AWSGHSARVG AARDMARAGV SIPEIMQAGG
WTNVNIVMNY IRNLDSETGA MVRLLEDGDL

EESGGGSPG RRRRRRRR R

Amino acids 2 to 343

Additional sequence information N-terminal T7 tag/His/TEV cleavage site tag and C-terminal 11R tag.

**Specifications** 

Our <u>Abpromise guarantee</u> covers the use of ab134845 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

**Applications** Functional Studies

SDS-PAGE

1

#### **Form**

#### **Additional notes**

Liquid

#### Applications:

- 1. Protein intracellular transduction for in vitro Cre-loxP recombination.
- 2. Negative control for 11R-Tag human transcription factor mediated cell differentiation assay in vitro.

Functional Assay: Mix 1 $\mu$ g Cre-11R protein with 2 $\mu$ l ProFectinTM by following ProFectinTM manufacture suggested protocol, and incubate transfection mixture on 0.25 x10<sup>6</sup> 293-LoxP-eGFP cell line / well (6 well plate) for 30 min in serum free medium, will achieve > 35% transduction efficiency. (Positive for GFP cells).

### **Preparation and Storage**

#### Stability and Storage

Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.

pH: 8.00

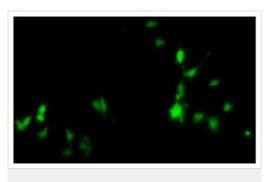
Constituents: 0.02% DTT, 0.32% Tris HCl, 0.58% Sodium chloride, 0.08% Potassium chloride, 10% Glycerol

#### General Info

#### Relevance

Cre-recombinase is a 38 kDa DNA recombinase derived from the P1 bacteriophage. It is highly specific for a 34 bp DNA sequence (loxP) found in P1 DNA. It catalyzes site-specific recombination between two 34-base-pair LOXP sites. Its role is to maintain the phage genome as a monomeric unit-copy plasmid in the lysogenic state. It is homotetramer when bound to DNA and belongs to the "phage" integrase family.

#### **Images**



Functional Studies - Recombinant bacteriophage p1
Cre recombinase protein (ab134845)

Analysis of 0.25 x10 $^6$  293-LoxP-eGFP report cell line with 1  $\mu$ g ab134845. Cells were cultivated overnight before viewing GFP positive cells.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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