



Product Specification Sheet

**CRE recombinase antibody**

Cat # CRE11-A	Rabbit Anti- CRE recombinase antibody	<b>SIZE:</b> 100 µg
Cat# CRE15-R-50	Recombinant CRE recombinase protein	<b>SIZE:</b> 50 µg
Cat # CRE11-C	Recombinant CRE recombinase protein control for Western blotting	<b>SIZE:</b> 100 µl

Cre is a 38 kDa recombinase protein from bacteriophage P1 which mediates intramolecular and intermolecular site specific recombination between loxP sites. 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. The role of Cre is to resolve dimers of P1 that arise after replication in order to allow partitioning of the two P1 molecules at cell division. A loxP site (locus of X-ing over) consists of two 13 bp inverted repeats separated by an 8 bp asymmetric spacer region. One molecule of Cre binds per inverted repeat or two Cre molecules line up at one loxP site. The recombination occurs in the asymmetric spacer region. Those 8 bases are also responsible for the directionality of the site. Cre recombinase is used as a tool for the generation of transgenic animals

**Source of Antigen and Antibodies**

**Uniprot:** P06956

**Host:** Rabbit

**Clonality:** Polyclonal

**Immunogen:** Full length recombinant CRE recombinase

**Purification:** Ammonium sulfate followed by protein affinity purification

**Subcellular Location:** Nuclear

**Recommended Secondary Antibody:** Goat anti-Rabbit IgG-HRP (**ADI cat#20320**)

**Negative Control:** Non-immune Rabbit IgG (**ADI cat# 20009-1**).

**CRE11-C:** Contains a recombinant *E. coli* expressed full length CRE recombinase protein at a concentration of 5 ng/µl in Laemmli buffer (62.5 mM Tris-HCL, pH 6.8, 2% SDS, 10% glycerol, 5% BME, and 0.002% bromphenol blue). Heat for 5 minutes at 95°C then load 1-5 µl. Store at -20°C in suitable size aliquots, do not expose to multiple free/thaw cycles. **Note:** Due to the addition of tags, the protein appears slightly larger than native protein.

**CRE15-R-50:** Contains 50 µg of soluble *E. coli* expressed CRE recombinase supplied in 50 mM Tris-HCl, 5 mM  $\beta$ -Mercapto-ethanol, 0.25 M NaCl and 0.25 M imidazole with a N-terminal 6-his tag

**Form & Storage of Antibodies**

**Affinity pure IgG Solution**

Concentration: 0.5 mg/ml      Volume: 200 µl  
Supplied in PBS, pH 7.4 + 0.1% BSA  
The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

**Lyophilized powder**

Lyophilized from a formulation of PBS pH 7.4 +3% trehalose. Reconstitute powder in 200 µl PBS, 0.05% tween-20, and 0.1% BSA to 0.5 mg/ml

**Storage:**

**Short-term:** 4°C for 1 month

**Long-term:** at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple free/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at -20°C.

**Recommended Usage**

**ELISA:** Assay dependent concentration. Typically, between 0.1-2.0 µg/ml for capture/detection antibodies. Request the carrier free or conjugated version

**Western Blotting:** 0.5-1.0 µg/ml  
Predicted band size: 38.5 kDa  
Observed band size:38.5 kDa.

**Immunohistochemistry& Immunocytochemistry:** Not validated for use in-house. We suggest 1-10 µg/ml.

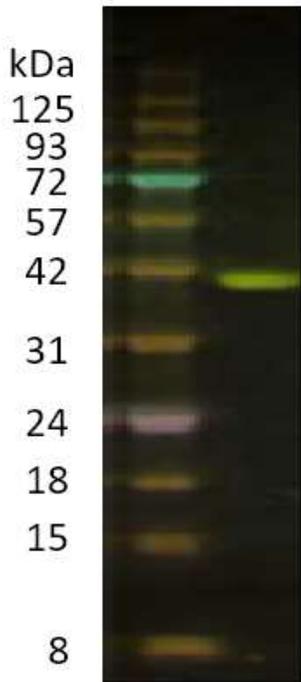
The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Immunocytochemistry or IP. These methods have not been tested by ADI.

*\*This product is for In vitro research use only.*

**Related materials available from ADI**

CRE11-A

190702IA



**Western blotting:** 5 ng of recombinant CRE recombinase was heated for 5 minutes at 95°C then electrophoretically separated on a 10% SDS-PAGE gel. The gel was run at 100V for ~1 hour and 30 minutes then transferred to a 0.2 µm nitrocellulose membrane using the 'Mixed MW' settings on a Transblot Turbo (Biorad). The blot was blocked for 1 hour at room temperature with 1% Casein. **CRE11-C** was diluted with TBST+0.1% BSA to 1 µg/ml and incubated overnight at 4°C. The blot was washed with TBS-T 3 times for 5 minutes each. Goat anti-rabbit IgG HRP (**ADI cat#20320**) was diluted in TBST+0.1% BSA to 400 ng/ml then incubated for 1 hour at room temperature. The blot was washed 3 times with TBS-T for 5 minutes each. The blot was then incubated with regular strength ECL substrate for 1 minute and imaged on a CCD imaging system (C-DiGit, LI-COR).