

Product datasheet

Anti-Firefly Luciferase antibody ab187340

[1 References](#) [6 Images](#)

Overview

Product name	Anti-Firefly Luciferase antibody
Description	Rabbit polyclonal to Firefly Luciferase
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF, IP, Neutralising
Species reactivity	Reacts with: Firefly
Immunogen	Recombinant full length protein corresponding to Firefly Luciferase aa 1 to the C-terminus. (Red Firefly (<i>Luciola cruciata</i>) Luciferase purified from <i>E. coli</i>). Database link: P13129 Run BLAST with Run BLAST with
Positive control	Red Firefly Luciferase transfected 293 whole cell lysate; Full length recombinant Red Firefly Luciferase; pCMV-Red Firefly Luciferase transfected 293 cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 69% PBS, 30% Glycerol, 0.1% BSA
Purity	Protein G purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab187340 in the following tested applications.

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

Application	Abreviews	Notes
WB		1/2000 - 1/4000. Predicted molecular weight: 60 kDa.
ICC/IF		1/500 - 1/1000.
IP		Use at 25 µg/mg of lysate.
Neutralising		Use at an assay dependent concentration.

Target

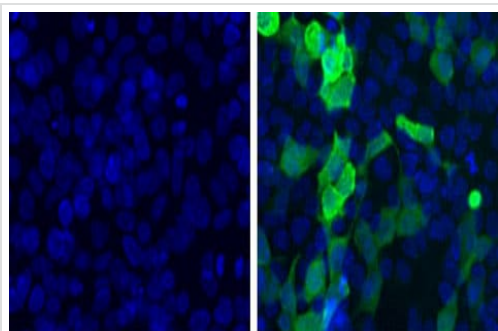
Relevance

Luciferase from the firefly has become one of the more widely used reporter proteins for the study of gene expression. Luciferase catalyzes a bioluminescent reaction which requires the substrate luciferin as well as Mg²⁺ and ATP. Mixing these reagents with the cell extract containing luciferase, results in a flash of light that decays rapidly. This light can be detected by a luminometer. The total light emission is proportional to the luciferase activity of the sample.

Cellular localization

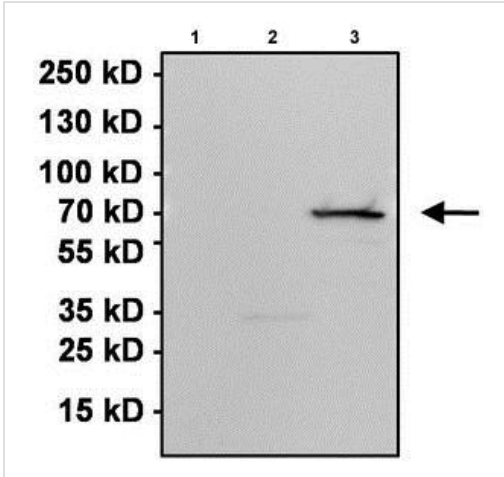
Peroxisome

Images



Immunocytochemistry/ Immunofluorescence - Anti-Firefly Luciferase antibody (ab187340)

Immunofluorescent analysis of Red Firefly Luciferase (from the Japanese firefly *Luciola cruciata*) in pCMV-Red Firefly Luciferase transfected (green, right panel) and untransfected 293 cells (left panel). Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature. Cells were probed with ab187340 at 1/1000 dilution for at least 1 hour at room temperature, washed with PBS, and incubated with a DyLight 488-conjugated goat anti-rabbit IgG secondary antibody at 1/400 dilution for 30 minutes at room temperature. Nuclei (blue) were stained with Hoechst 33342 dye.



Western blot - Anti-Firefly Luciferase antibody
(ab187340)

All lanes : Anti-Firefly Luciferase antibody (ab187340) at 1/4000 dilution

Lane 1 : Non-transfected 293 whole cell lysate

Lane 2 : Green Renilla Luciferase transfected 293 whole cell lysate

Lane 3 : Red Firefly Luciferase transfected 293 whole cell lysate

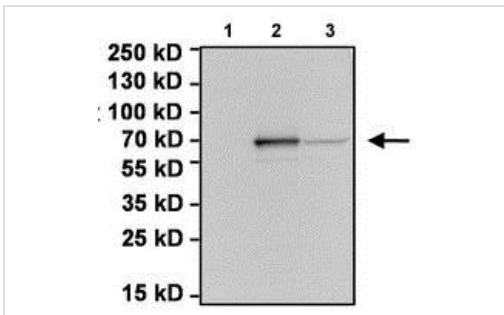
Blocking peptides at 10 µg per lane.

Secondary

All lanes : Goat anti-rabbit HRP at 1/500 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa



Western blot - Anti-Firefly Luciferase antibody
(ab187340)

All lanes : Anti-Firefly Luciferase antibody (ab187340) at 1/4000 dilution

Lane 1 : Non-transfected 293 whole cell lysate

Lane 2 : Red Firefly Luciferase transfected 293 whole cell lysate

Lane 3 : North American firefly (*Photynus pyralis*) Luciferase transfected 293 whole cell lysate

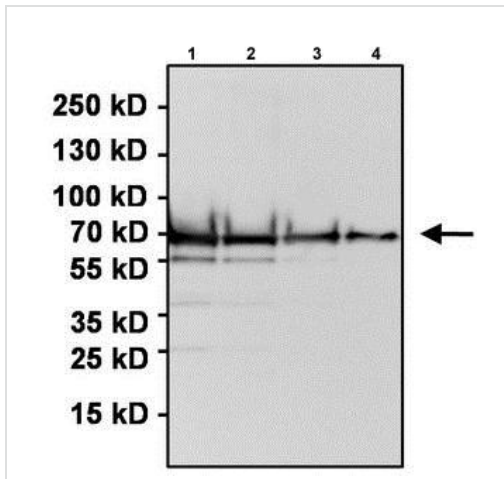
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat anti-rabbit HRP at 1/500 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa



Western blot - Anti-Firefly Luciferase antibody (ab187340)

All lanes : Anti-Firefly Luciferase antibody (ab187340) at 1/4000 dilution

Lane 1 : Full length recombinant Red Firefly Luciferase at 100 μ g

Lane 2 : Full length recombinant Red Firefly Luciferase at 50 μ g

Lane 3 : Full length recombinant Red Firefly Luciferase at 25 μ g

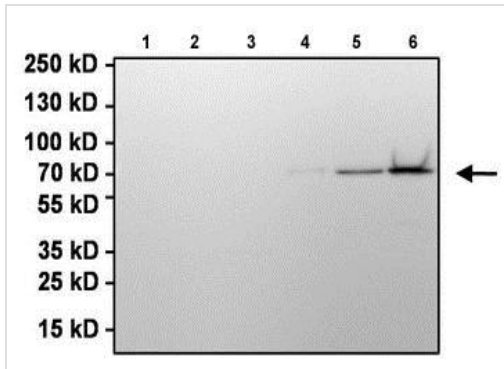
Lane 4 : Full length recombinant Red Firefly Luciferase at 10 μ g

Secondary

All lanes : Goat anti-rabbit HRP at 1/500 dilution

Developed using the ECL technique.

Predicted band size: 60 kDa



Immunoprecipitation - Anti-Firefly Luciferase antibody (ab187340)

Immunoprecipitation of Red Firefly Luciferase (from the Japanese firefly *Luciola cruciata*) was performed using whole cell lysates from untransfected and Red Firefly or Green Renilla Luciferase transfected 293 cell lines. Antigen-antibody complexes were formed by incubating 200 μ g of lysate with 5 μ g of ab187340 overnight on a rocking platform at 4°C. The immune complexes were captured on 50 μ l Protein A/G Agarose, washed extensively, and eluted. Whole cell lysates from untransfected and transfected whole cell lysates (2 μ g) were used as controls. Samples were resolved on a 4-20% Tris-HCl polyacrylamide gel, transferred to a PVDF membrane, and blocked with 5% BSA/TBS-0.1% Tween-20 for 1 hour. The membrane was probed with ab187340 at 1/4000 dilution overnight rotating at 4°C.

Lane 1: Non-transfected 293 whole cell lysate

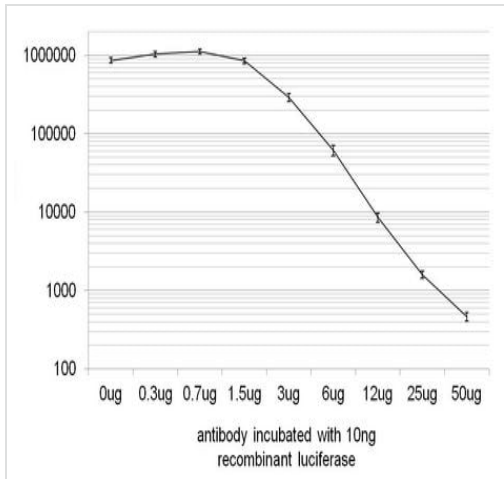
Lane 2: IP using ab187340 from non-transfected 293 whole cell lysate

Lane 3: Green Renilla Luciferase transfected 293 whole cell lysate

Lane 4: IP using ab187340 from Green Renilla Luciferase transfected 293 whole cell lysate

Lane 5: Red Firefly Luciferase transfected 293 whole cell lysate

Lane 6: IP using ab187340 from Red Firefly Luciferase transfected 293 whole cell lysate



Neutralising - Anti-Firefly Luciferase antibody
(ab187340)

Neutralizing effect of ab187340 on the activity of purified recombinant Red Firefly Luciferase (from the Japanese firefly *Luciola cruciata*). 10ng of recombinant enzyme were incubated with the indicated amounts of ab187340 for at least 30 min. Enzyme activity (RLU) was detected. Average RLU values from 10 timepoints per concentration of 4 replicates +/- standard deviation is shown.

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