

### Anti-Dicer antibody [13D6] - ChIP Grade ab14601

敲除验证

★★★★★ 16 Abreviews 149 References 6 图像

#### 概述

产品名称	Anti-Dicer抗体[13D6] - ChIP Grade
描述	小鼠单克隆抗体[13D6] to Dicer - ChIP Grade
宿主	Mouse
特异性	We do not guarantee its use in WB with mouse lysates.
经测试应用	适用于: WB, ChIP, Flow Cyt
种属反应性	与反应: Mouse, Human 不与反应: Caenorhabditis elegans
免疫原	Synthetic peptide corresponding to Human Dicer.
阳性对照	WB: 10ng of recombinant dicer (using ECL or ECL Plus) in under one minute of exposure to film. ICC: Human Fibroblasts
常规说明	<p>To our knowledge the localization of Dicer remains to be fully determined and it appears that its localization can be nuclear and/or cytoplasmic. Please see reference Meltzer, 2005 for a reference to a cytoplasmic localisation (figure 1 of paper), as supported with the staining seen in the image on this datasheet.</p> <p>Please note this antibody gave negative results in WB with mouse fibroblast cell line lysates. We do not guarantee its use in WB with mouse lysates.</p> <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&amp;As</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.02% Sodium azide

	Constituent: HEPES buffered saline
纯度	Ammonium Sulphate Precipitation
克隆	单克隆
克隆编号	13D6
同种型	IgG2a

应用

The Abpromise guarantee      **Abpromise™**承诺保证使用ab14601于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★★ (9)	1/100 - 1/2000. Please note this antibody gave negative results in WB with mouse fibroblast cell line lysates. We do not guarantee its use in WB with mouse lysates.
ChIP		Use at an assay dependent concentration.
Flow Cyt		Use 0.1µg for 10 <sup>6</sup> cells. <b>ab170191</b> - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.

靶标

**功能**

Double-stranded RNA (dsRNA) endoribonuclease playing a central role in short dsRNA-mediated post-transcriptional gene silencing. Cleaves naturally occurring long dsRNAs and short hairpin pre-microRNAs (miRNA) into fragments of twenty-one to twenty-three nucleotides with 3' overhang of two nucleotides, producing respectively short interfering RNAs (siRNA) and mature microRNAs. SiRNAs and miRNAs serve as guide to direct the RNA-induced silencing complex (RISC) to complementary RNAs to degrade them or prevent their translation. Gene silencing mediated by siRNAs, also called RNA interference, controls the elimination of transcripts from mobile and repetitive DNA elements of the genome but also the degradation of exogenous RNA of viral origin for instance. The miRNA pathway on the other side is a mean to specifically regulate the expression of target genes.

**疾病相关**

Pleuropulmonary blastoma  
Goiter multinodular 1, with or without Sertoli-Leydig cell tumors  
Rhabdomyosarcoma, embryonal, 2  
DICER1 mutations have been found in uterine cervix embryonal rhabdomyosarcoma, primitive neuroectodermal tumor, Wilms tumor, pulmonary sequestration and juvenile intestinal polyp (PubMed:21882293). Somatic missense mutations affecting the RNase IIIb domain of DICER1 are common in non-epithelial ovarian tumors. These mutations do not abolish DICER1 function but alter it in specific cell types, a novel mechanism through which perturbation of microRNA processing may be oncogenic (PubMed:22187960).

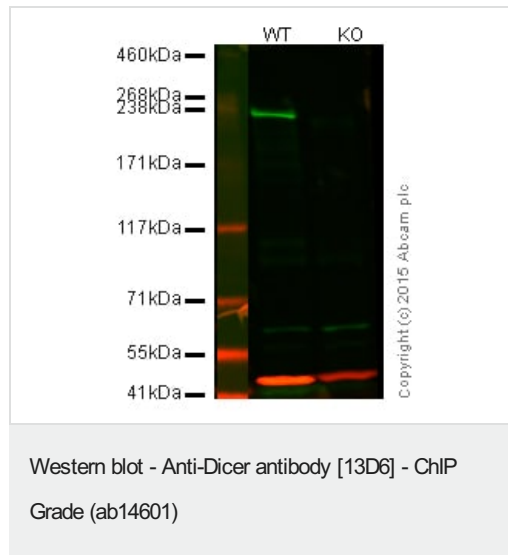
**序列相似性**

Belongs to the helicase family. Dicer subfamily.  
Contains 1 Dicer dsRNA-binding fold domain.

Contains 1 DRBM (double-stranded RNA-binding) domain.  
 Contains 1 helicase ATP-binding domain.  
 Contains 1 helicase C-terminal domain.  
 Contains 1 PAZ domain.  
 Contains 2 RNase III domains.  
 Cytoplasm.

## 细胞定位

## 图片

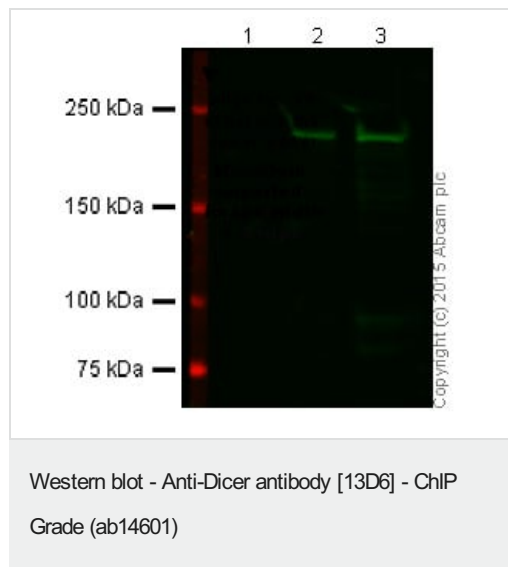


**Lane 1:** Wild-type HAP1 cell lysate (20 µg)

**Lane 2:** Dicer knockout HAP1 cell lysate (20 µg)

**Lanes 1 and 2:** Merged signal (red and green). Green - ab14601 observed at 240 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab14601 was shown to specifically react with Dicer in wild-type HAP1 cells. No band was observed when Dicer knockout samples were used. Wild-type and Dicer knockout samples were subjected to SDS-PAGE. ab14601 and **ab181602** (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) secondary antibodies at 1/10,000 dilution for 1hr at room temperature before imaging.



**All lanes :** Anti-Dicer antibody [13D6] - ChIP Grade (ab14601) at 1/2000 dilution (incubated overnight at 4°C.)

**Lane 1 :** NIH 3T3

**Lane 2 :** A549

**Lane 3 :** HepG2

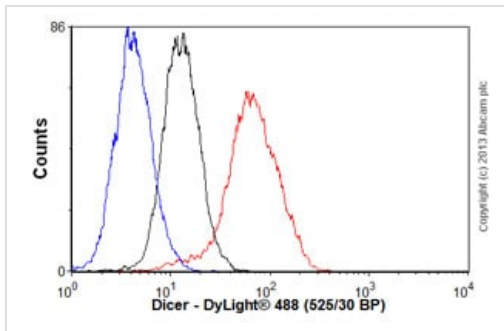
Lysates/proteins at 20 µg per lane.

## Secondary

**All lanes :** Goat anti-Mouse Green at 1/10000 dilution

This blot was produced using a 3-8% Tris Acetate gel under the TA buffer system. The gel was run at 150V for 60 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour before being

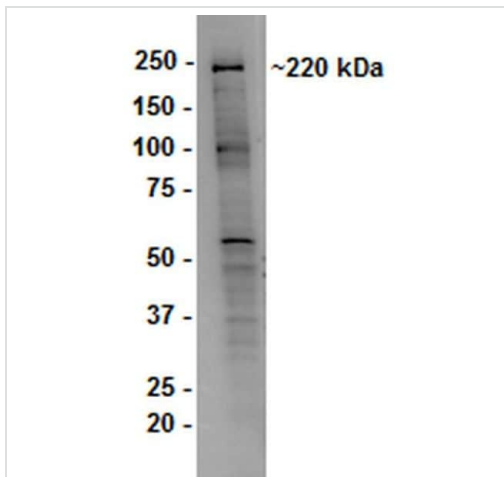
incubated with ab14601 overnight at 4°C. Antibody binding was detected using IR-labelled goat anti-mouse Ab at a 1:10,000 dilution for 1hr at room temperature and then imaged using the Licor Odyssey CLx.



Flow Cytometry - Anti-Dicer antibody [13D6] - ChIP Grade (ab14601)

Overlay histogram showing HEK293 cells stained with ab14601 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab14601, 0.1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] ([ab91361](#), 0.1µg/1x10<sup>6</sup> cells) used under the same conditions.

Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

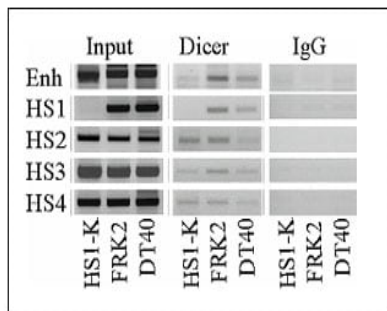


Western blot - Anti-Dicer antibody [13D6] - ChIP Grade (ab14601)

HepG2 cell lysate at 20 µg  
Developed using the ECL technique.

Performed under reducing conditions.

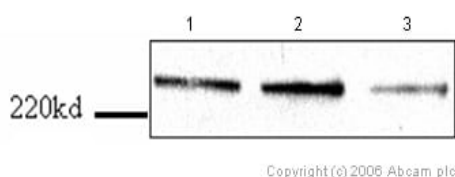
**Additional bands at:** 100 kDa (possible non-specific binding), 60 kDa (possible non-specific binding)



ChIP - Anti-Dicer antibody [13D6] - ChIP Grade  
(ab14601)

This image is courtesy of Elliot Epner MD PhD, Oregon Health and Science University, Portland

ChIP analysis of Dicer protein binding at chicken  $\beta$ -globin regulatory elements. Chromatin from human erythroleukemia (K562) cells containing chicken chromosomes with normal (FRK2) or mutant (HS1-K)  $\beta$ -globin loci and chicken DT40 cells was immunoprecipitated with antibodies to Dicer (ab14601). PCR analysis of immunoprecipitated chromatin was carried out using primers to the chicken  $\beta$ -globin regulatory elements. Mouse IgG served as control. 10% of input DNA was utilized.



Western blot - Anti-Dicer antibody [13D6] - ChIP Grade (ab14601)

This image is courtesy of Jing Huang and Elliot Epner Oregon Health and Science University

**All lanes :** Anti-Dicer antibody [13D6] - ChIP Grade (ab14601) at 2.5  $\mu$ g/ml

**Lane 1 :** human B cell lymphoma lysate

**Lane 2 :** human B cell lymphoma lysate infected with control shRNA retrovirus

**Lane 3 :** human B cell lymphoma lysate infected with Dicer knockdown shRNA virus

Lysates/proteins at 2.5  $\mu$ g/ml per lane.

**Observed band size:** 225 kDa

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