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Datasheet for ABIN969067

## anti-CRTC2 antibody

4 Images

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### Overview

Quantity:	100 µL
Target:	CRTC2
Reactivity:	Human, Monkey
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Flow Cytometry (FACS), Immunocytochemistry (ICC)

### Product Details

Immunogen:	Purified recombinant fragment of human CRTC2 expressed in E. coli.
Clone:	5B10
Isotype:	IgG1
Purification:	purified

### Target Details

Target:	CRTC2
Alternative Name:	CRTC2 ( <a href="#">CRTC2 Products</a> )
Background:	Description: Glucose homeostasis is regulated by hormones and cellular energy status. Elevations of blood glucose during feeding stimulate insulin release from pancreatic $\beta$ -cells through a glucose sensing pathway. Feeding also stimulates release of gut hormones such as glucagon-like peptide-1 (GLP-1), which further induces insulin release, inhibits glucagon release

## Target Details

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and promotes  $\beta$ -cell viability. CREB-dependent transcription likely plays a role in both glucose sensing and GLP-1 signaling . The protein Torc2 (transducer of regulated CREB activity 2) functions as a CREB co-activator and is implicated in mediating the effects of these two pathways . In quiescent cells, Torc2 is phosphorylated at Ser171 and becomes sequestered in the cytoplasm via an interaction with 14-3-3 proteins. Glucose and gut hormones lead to the dephosphorylation of Torc2 and its dissociation from 14-3-3 proteins. Dephosphorylated Torc2 enters the nucleus to promote CREB-dependent transcription. Torc2 plays a key role in the regulation of hepatic gluconeogenic gene transcription in response to hormonal and energy signals during fasting. Tissue specificity: Most abundantly expressed in the thymus. Present in both B and T lymphocytes. Highly expressed in HEK293T cells and in insulinomas. High levels also in spleen, ovary, muscle and lung, with highest levels in muscle. Lower levels found in brain, colon, heart, kidney, prostate, small intestine and stomach. Weak expression in liver and pancreas .

Aliases: TORC2, TORC-2, CRTC2

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Molecular Weight: 80 kDa

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Gene ID: 200186

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HGNC: 200186

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Pathways: [AMPK Signaling](#), [Carbohydrate Homeostasis](#)

## Application Details

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Application Notes: ELISA: 1:10000, WB: 1:500 - 1:2000, IHC: 1:200 - 1:1000, ICC: 1:200 - 1:1000, FCM: 1:200 - 1:400

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: Ascitic fluid containing 0.03 % sodium azide.

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Preservative: Sodium azide

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Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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Storage: 4 °C/-20 °C

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Storage Comment: 4°C, -20°C for long term storage

## Publications

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Product cited in:

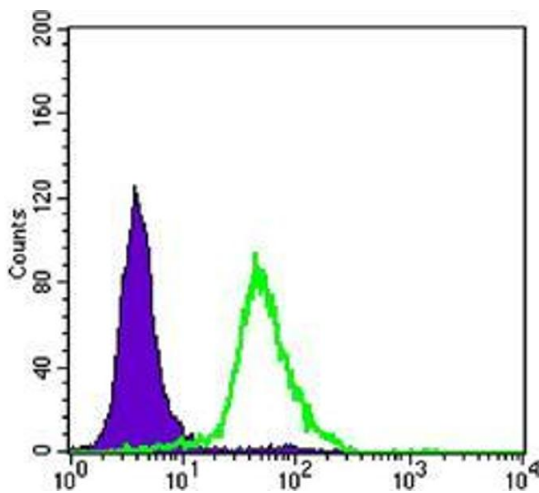
Murata, Sato, Nakayama, Kudoh, Iwahori, Isomura, Tajima, Hishiki, Ohshima, Hijikata, Shimotohno, Tsurumi: "TORC2, a coactivator of cAMP-response element-binding protein, promotes Epstein-Barr virus reactivation from latency through interaction with viral BZLF1 protein." in: **The Journal of biological chemistry**, Vol. 284, Issue 12, pp. 8033-41, (2009) ([PubMed](#)).

Ewing, Chu, Elisma, Li, Taylor, Climie, McBroom-Cerajewski, Robinson, OConnor, Li, Taylor, Dharsee, Ho, Heilbut, Moore, Zhang, Ornatsky, Bukhman, Ethier, Sheng, Vasilescu, Abu-Farha, Lambert, Duewel et al.: "Large-scale mapping of human protein-protein interactions by mass spectrometry. ..." in: **Molecular systems biology**, Vol. 3, pp. 89, (2007) ([PubMed](#)).

Dentin, Liu, Koo, Hedrick, Vargas, Heredia, Yates, Montminy: "Insulin modulates gluconeogenesis by inhibition of the coactivator TORC2." in: **Nature**, Vol. 449, Issue 7160, pp. 366-9, (2007) ([PubMed](#)).

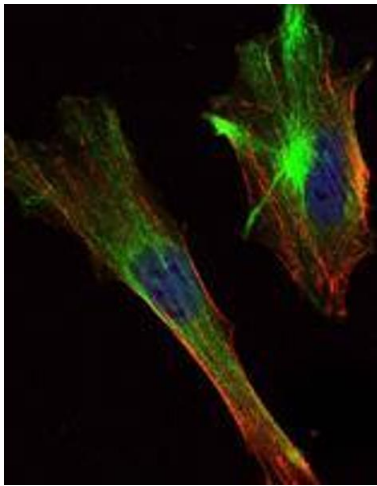
## Images

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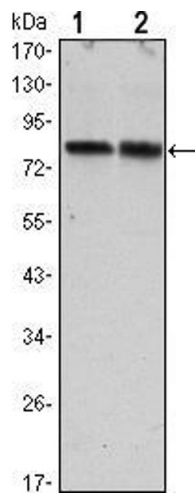
### Flow Cytometry

**Image 1.** Flow cytometric analysis of HeLa cells using CRTC2 mouse mAb (green) and negative control (purple).



### Immunofluorescence

**Image 2.** Immunofluorescence analysis of HeLa cells using CRTC2 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



### Western Blotting

**Image 3.** Western blot analysis using CRTC2 mouse mAb against HeLa (1) and HEK293 (2) cell lysate.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN969067.