

## Anti-CAMK2G Antibody (8A304)

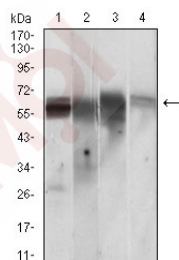
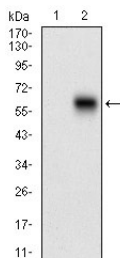
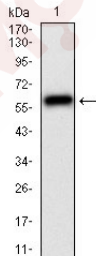
### Product Details

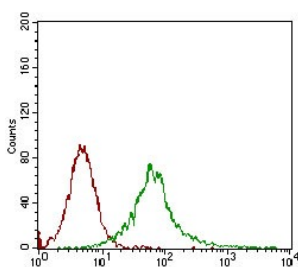
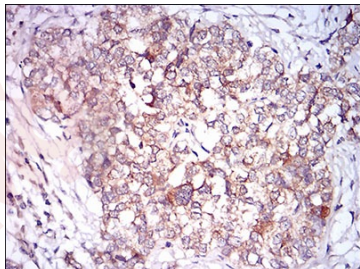
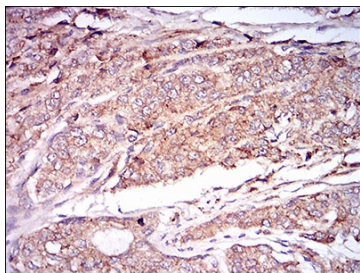
|                   |                        |
|-------------------|------------------------|
| Reactivity:       | Human,Rat              |
| Conjugation:      | Unconjugated           |
| Molecular Weight: | Theoretical: 63 kDa.   |
| Clone:            | 8A304                  |
| Purification:     | ProA affinity purified |

### Applications

#### Verified Activity:

1. Western blot analysis of CaMKII gamma on human CaMKII gamma recombinant protein using anti- CaMKII gamma antibody at 1/1,000 dilution.
2. Western blot analysis of CaMKII gamma on HEK293 (1) and CaMKII gamma-hlgFc transfected HEK293 (2) cell lysate using anti- CaMKII gamma antibody at 1/1,000 dilution.
3. Western blot analysis of CaMKII gamma on different cell lysate using anti-CaMKII gamma antibody at 1/1,000 dilution. Positive control: Line1: PC-12, Line2: Jurkat, Line3: T47D, Line4: HepG2.
4. Immunohistochemical analysis of paraffin-embedded human prostate cancer tissue using anti-CaMKII gamma antibody. Counter stained with hematoxylin.
5. Immunohistochemical analysis of paraffin-embedded human bladder cancer tissue using anti-CaMKII gamma antibody. Counter stained with hematoxylin.
6. Flow cytometric analysis of Jurkat cells with CaMKII gamma antibody at 1/100 dilution (green) compared with an unlabelled control (cells without incubation with primary antibody;





Application: FCM,IHC,WB  
 Recommended WB: 1:500-2000; IHC: 1:200-500; FCM: 1:50-100

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.  
 Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: Recombinant Protein  
 Uniprot ID: Q13555  
 Synonyms: CAMK2B;CaMK-II subunit alpha;CAMK2;CaM kinase II alpha;Calcium/calmodulin dependent protein kinase II beta;Calcium/calmodulin-dependent protein kinase type II subunit alpha;CaM kinase II gamma;CaM kinase II subunit alpha;CaM kinase II beta;Calcium/calmodulin dependent protein kinase II delta;CaM kinase II delta;Calcium/calmodulin dependent protein kinase II gamma;CAMK2G;KCC2A\_HUMAN;CAMKA;CaM kinase II;CAMK2A;Calcium/calmodulin dependent protein kinase II alpha;CAMK2D

### Research Background

The Ca<sup>2+</sup>/calmodulin-dependent protein kinases (CaM kinases) comprise a structurally related subfamily of serine/threonine kinases which include CaMKI, CaMKII and CaMKIV. CaMKII is a ubiquitously expressed serine/threonine protein kinase that is activated by Ca<sup>2+</sup> and calmodulin (CaM) and has been implicated in regulation of the cell cycle and transcription. There are four CaMKII isozymes designated  $\alpha$ ,  $\beta$ ,  $\gamma$  and  $\delta$ , which may or may not be co-expressed in the same tissue type. CaMKIV is stimulated by Ca<sup>2+</sup> and CaM but also requires phosphorylation by a CaMK for full activation. Stimulation of the T cell receptor CD3 signaling complex with an CD3 monoclonal antibody leads to a 10-40 fold increase in CaMKIV activity. An additional kinase, CaMKK, functions to activate CaMKI through the specific phosphorylation of the regulatory Threonine residue at position 177.

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