

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human CaM Kinase II $\alpha$ in direct ELISAs.                                                                                                                                                                                                                      |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>2B</sub> Clone # 525501                                                                                                                                                                                                                           |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant                                                                                                                                                                                                                  |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human CaM Kinase II $\alpha$<br>Ala144-Ala262<br>Accession # Q9UQM7                                                                                                                                                                     |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

Calcium/calmodulin-dependent protein kinase type II alpha (CaMKII $\alpha$ ) belongs to a family of multifunctional serine/threonine kinases activated in response to increases in intracellular calcium. There are 4 CaMKII isozymes,  $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ , and each can yield several isoforms through alternative splicing. CaMKII isoforms assemble into homo- or heteromultimeric holoenzymes composed of 8 to 12 subunits. CaMKII $\alpha$  is predominantly expressed in the brain. It shares 100% aa sequence identity between human, mouse, and rat within aa 144-262 of isoform 1.

#### PRODUCT SPECIFIC NOTICES

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