

**Datasheet for 000-001-E71****AKT2 Control Peptide****Overview**

|                      |                                    |
|----------------------|------------------------------------|
| <b>Description:</b>  | AKT2 Control Peptide - 000-001-E71 |
| <b>Item No.:</b>     | 000-001-E71                        |
| <b>Size:</b>         | 50 µg                              |
| <b>Applications:</b> | WB                                 |
| <b>Origin:</b>       | Human                              |

**Product Details**

|                           |   |
|---------------------------|---|
| <b>Background:</b>        | AKT2 Control peptide is for use in control assays with Anti-AKT2 (p/n 200-501-E71). AKT2 Antibody detects AKT2 which is a component of the PI-3 kinase pathway and is activated by phosphorylation at Ser 473 and Thr 308. AKT is a cytoplasmic protein also known as Protein Kinase B (PKB) and rac (related to A and C kinases). AKT is a key regulator of many signal transduction pathways. AKT Exhibits tight control over cell proliferation and cell viability. Overexpression or inappropriate activation of AKT is noted in many types of cancer. AKT mediates many of the downstream events of PI 3-kinase (a lipid kinase activated by growth factors, cytokines and insulin). PI 3-kinase recruits AKT to the membrane, where it is activated by PDK1 phosphorylation. Once phosphorylated, AKT dissociates from the membrane and phosphorylates targets in the cytoplasm and the cell nucleus. AKT has two main roles: (i) inhibition of apoptosis; (ii) promotion of proliferation. |
| <b>Synonyms:</b>          | AKT 2, AKT-2, PKB, PKB beta, PKBBETA PRKBB, Protein kinase Akt 2, Protein kinase B beta, RAC-beta serine/threonine-protein kinase, RAC-PK-beta, blocking peptide  |
| <b>Species of Origin:</b> | Human   |
| <b>Type:</b>              | Peptide   |

**Target Details**

|                            |  |
|----------------------------|--|
| <b>Gene Name:</b>          | AKT2   |
| <b>Purity/Specificity:</b> | Purity was determined to be greater than 98% by analysis by RP-HPLC and by reducing and non-reducing SDS-PAGE.               |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P31751</a></li><li>• <a href="#">NCBI - P31751</a></li></ul> |

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## Application Details

|                             |   |
|-----------------------------|---|
| <b>Tested Applications:</b> | WB  |
| <b>Application Note:</b>    | AKT2 Control peptide has been tested in western blot and is suitable as a control for polyclonal or monoclonal Anti-AKT2 in immunological assays. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.   |

## Formulation

|                               |  |
|-------------------------------|--|
| <b>Physical State:</b>        | Lyophilized                                  |
| <b>Concentration:</b>         | 1.0 mg/mL by UV absorbance at 280 nm         |
| <b>Buffer:</b>                | None   |
| <b>Preservative:</b>          | 0.01% (w/v) Sodium Azide                     |
| <b>Stabilizer:</b>            | None   |
| <b>Reconstitution Volume:</b> | 50µL   |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent) |

## Shipping & Handling

|                            |  |
|----------------------------|--|
| <b>Shipping Condition:</b> | Ambient  |
| <b>Storage Condition:</b>  | Store vial at 2-8 °C prior to opening. Aliquot contents and freeze at -20 °C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is six (6) months from date of receipt.  |

## Disclaimer

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