



## Cat nr AE00130

## Product Datasheet

Mouse Monoclonal Antibody, clone AKT1/2552 to:

### AKT1, serine/threonine kinase 1

Protein kinase B; Protein kinase B alpha; Proto-oncogene c-Akt; RAC-alpha serine/threonine-protein kinase; serine/threonine kinase 1; serine/threonine kinase 1; AKT; CWS6; PKB; PKB-ALPHA; PKBalpha; PRKBA; RAC; RAC-ALPHA; RAC-PK-alpha

Cellular localization Nucleus, intracellular vesicles and plasma membrane

Official Symbol (Gene) AKT1  
 GenelD 207  
 SwissProt P31749

Confirmed Applications IHC, PA, WB  
 Positive controls PDGF-treated NIH/3T3, HeLa, cervical carcinoma, pancreas.  
 Aeonian Rating© 85

Purification By Protein A from bioreactor concentrate  
 Formulation  200ug IgG/ml in PBS, 0.05% BSA, 0.05% azide (20ug or 100ug)  
 1mg IgG/ml in PBS (100ug or contact us for quotation)  
 Amount  20ug  100ug  
 Isotype Mouse IgG2b, kappa  
 Confirmed species reactivity Human  
 Immunogen Recombinant fragment around aa 85-189 of human AKT1 protein (exact sequence is proprietary)  
 Epitope Within aa 85-189 region

Storage instructions Avoid repeated freeze/thaw cycles. For long term storage, keep small aliquots at -20C or -80C and keep one aliquot at 4C for daily experimentations. Azide will preserve antibody at 4C for 6-12 months, when kept away from direct sun light.

Expiration Integrity warranted for 24 months after purchase when handled and stored according to instructions, see below.

Warranty This product is only warranted for the specifications as described in this product sheet and only when the product is handled and stored according to instructions. User should validate this antibody in the application and tissue/cell type as required, after confirmation of integrity upon receipt is obtained by reproducing the performance as described below. Should such confirmation not be attempted, any warranty is void. In case of non-conformance, user needs to contact us immediately for replacement or refund.

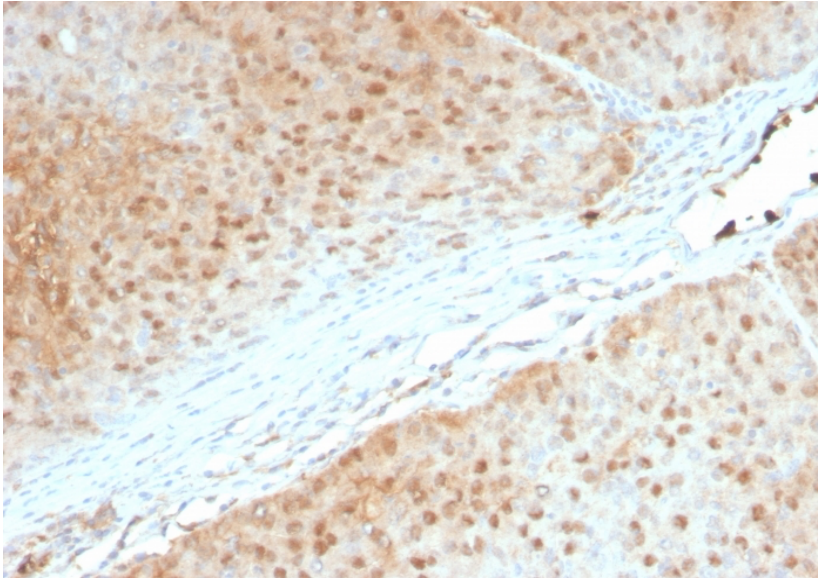
Liability This product is for in vitro research use only. Any other applications, such as diagnostics or therapeutics, or in vivo experiments, and the validation of this product therein, are solely at the responsibility of the buyer/user.

Product performance see next pages

**Product data:**

**ImmunoHistoChemistry (IHC):**

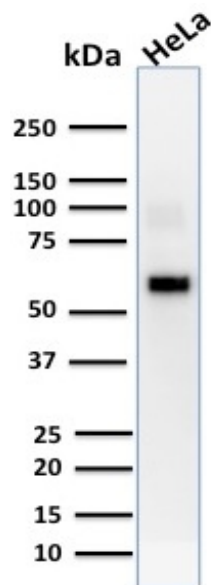
This product shows nuclear staining in human pancreas sections. Recommended concentration: 1-3ug/ml



Formaldehyde-fixed, paraffin-embedded human pancreas stained with AKT1 Mouse Monoclonal Antibody AE00130 at 1-2ug/ml for 30 minutes at RT. Epitope retrieval: Boiling at pH6 for 10-20 min followed by 20 min cooling. DAB staining by HRP polymer.

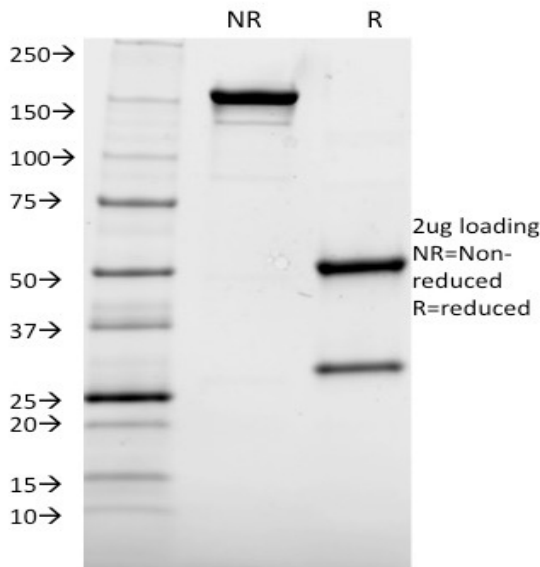
**Western Blot (WB):**

This product was successfully used to stain an approx. 60kDa band in lysates of cell line HeLa. Recommended concentration: 1-3ug/ml



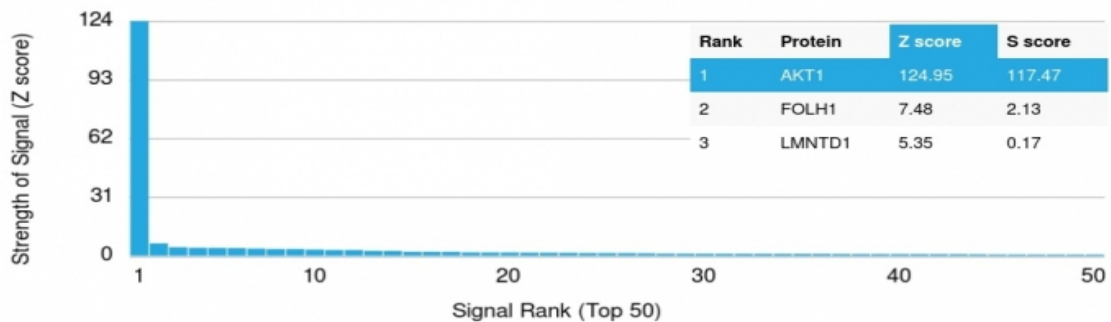
Western Blot of a HeLa lysate (30ug) stained with AKT1 Mouse Monoclonal Antibody AE00130 at 1-2ug/ml (1h at ambient temp). ECL staining by HRP.

SDS-PAGE Analysis of Purified AKT1 Mouse Monoclonal Antibody AE00130. Confirmation of Purity and Integrity of Antibody.



Integrity of the purified antibody AE00130 under non-reduced and reduced conditions, showing intact IgG at around 170kDa (NR) and intact heavy and light chains at 50kDa and 28kDa resp. (R).

Specificity and selectivity of AE00130 to AKT1 were tested against >19,000 full-length human proteins on a human protein array. A protein BLAST search against *H. sapiens* revealed the following closely related other proteins: AKT2 and AKT3. These were part of the array used and showed no cross-reactivity signals.



Cross-reactivity assessment of AKT1 Mouse Monoclonal Antibody AE00130 (1ug/ml) on CDI's Protein Array containing more than 19,000 full-length human proteins.

The Z-score represents the strength of a signal that an antibody (through a fluorophore-tagged secondary reagent) produces when binding to a particular protein on the array. Z-scores are in units of standard deviations (SD's) above the mean value of all signals generated on that array. When Z-scores are arranged in descending order, the difference between two successive values will be the S-score for the first. Thus, the S-score represents the relative specificity of the antibody to its intended target. An antibody is considered specific to its intended target, when it has an S-score of at least 2.5. For example, if an antibody binds to intended protein X with a Z-score of 43 and to the cross-reacting protein Y with a next Z-score of 14, then the S-score for the antibody to intended target X equals 29 (43-14).