

Product datasheet for **AM00109PU-N**

AKT2 (specific) (incl. pos. control) Mouse Monoclonal Antibody [Clone ID: 8B7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	8B7
Applications:	ELISA, IHC, WB
Recommended Dilution:	ELISA: 0.1 µg/ml. Immunohistochemistry. Western Blot: 1 µg/ml for HRPO/ECL detection. Recommended blocking buffer: Casein/Tween 20 based blocking and blot incubation buffer. <i>Included Positive Control:</i> Cell lysate from untreated HepG2 cells.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Synthetic peptide conjugated to KLH. Epitope: aa 107-123
Specificity:	This antibody specifically recognizes the beta isoform of PKB (PKBβ/Akt2).
Formulation:	1 ml, 2 x PBS containing 0.09% Sodium Azide, PEG and Sucrose State: Purified State: Lyophilized purified Ig fraction
Reconstitution Method:	Restore with 1 ml H ₂ O (15 min, RT).
Purification:	Thiophilic Adsorption and Size Exclusion Chromatography.
Conjugation:	Unconjugated
Storage:	Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquote and freeze in liquid nitrogen) at -80°C. Avoid repeated freezing and thawing. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.
Stability:	Shelf life: one year from despatch.
Gene Name:	AKT serine/threonine kinase 2



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Database Link: [Entrez Gene 208 Human P31751](#)

Background: Akt, protein kinase B (PKB), is a serine/threonine kinase, which is involved in many cellular signaling pathways and acts as a transducer of many functions initiated by growth factor receptors that activate phosphatidylinositol 3-kinase (PI 3-kinase). Akt2 is amplified and overexpressed in some human cancers.

AKT2 encodes a RAC/AKT-type protein kinase that contains a N-terminal pleckstrin-homology (PH) domain and a central catalytic domain closely related to both cAMP-dependent protein kinase and protein kinase C. The protein is a member of PI3K-mediated signalling pathways associated with the regulation of proliferation, survival, protein synthesis, and metabolism. It is activated by a variety of growth factors. AKT2 has been shown to be transcriptionally regulated by MyoD and to activate MyoD-myocyte enhancer binding factor-2 (MEF2) transactivation activity during muscle differentiation. Glycogen synthase kinase 3 (GSK-3) also has been shown to be a downstream target of AKT2. The AKT2 gene is one of the human homologues of v-akt, the transduced oncogene of the AKT8 virus, which induces lymphomas in mice. It has been implicated in breast, ovarian, and pancreatic cancers.

Synonyms: RAC-PK-beta, Protein kinase Akt-2, Protein kinase B beta

Note: **Molecular Weight:** 60 kDa

Protocol: **Positive Control Cell Lysate: HepG2 untreated.**

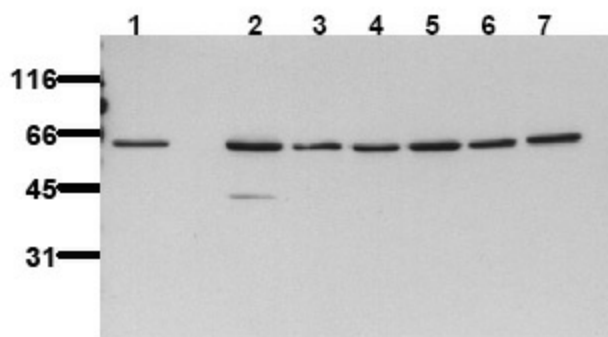
Format: Lyophilized cell lysate from serum starved HepG2 cells.

Reconstitution: Restore by addition of 200 µl H₂O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min. Aliquote and store frozen, avoid repeated freezing and thawing.

Application: The positive control cell lysate is recommended for immunoblot applications. 20 µl of positive control cell lysate correspond to ca. 80.000 cells. Use 20 µl / lane (mini gel) for HRPO/ECL detection of the target proteins.

Note: The lyophilized cell lysates contain SDS and are NOT recommended for applications with native proteins such as immunoprecipitation.

Product images:



Detection of endogenous akt2 Whole cell lysates of serum starved tumor cells (20.000 cells per lane) were applied to SDS-PAGE and transferred to PVDF membranes. Immunoblots were probed with mab PKB-8B7 (0.5 ug/ ml) for 1h at RT and developed by ECL (exp. time: 30 sec). Lane 1: A431 Lane 2:SW480 Lane 3: SW620 Lane 4: HT29 Lane 5: MCF7 Lane 6: MDA-MB-231 Lane 7: T47D