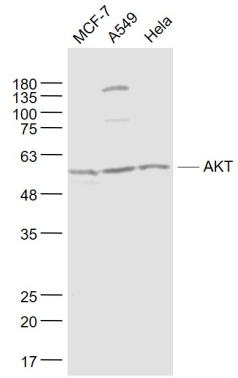
www.bioss.com.cn
sales@bioss.com.cn
techsupport@bioss.com.cn
400-901-9800

AKT Mouse mAb

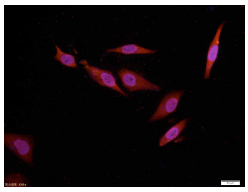
Catalog Number:	bsm-33278M
Target Protein:	AKT
Concentration:	1mg/ml
Form:	Size : 50ul/100ul/200ul Liquid Size : 200ug (PBS only) Lyophilized Note: Centrifuge tubes before opening. Reconstitute the lyophilized product in distilled water. Optimal concentration should be determined by the end user.
Host:	Mouse
Clonality:	Monoclonal
Clone No.:	10D8
Isotype:	IgG
Applications:	WB (1:500-1000), ICC/IF (1:50-500)
Reactivity:	Human
Predicted MW:	56 kDa
Entrez Gene:	207
Swiss Prot:	P31749
Source:	KLH conjugated synthetic peptide derived from human AKT: 420-479/479.
Purification:	affinity purified by Protein G
Storage:	Size : 50ul/100ul/200ul 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Size : 200ug (PBS only) 0.01M PBS Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Background:	This gene encodes one of the three members of the human AKT serine-threonine protein kinase family which are often referred to as protein kinase B alpha, beta, and gamma. These highly similar AKT proteins all have an N-terminal pleckstrin homology domain, a serine/threonine-specific kinase domain and a C-terminal regulatory domain. These proteins are phosphorylated by phosphoinositide 3-kinase (PI3K). AKT/PI3K forms a key component of many signalling pathways that involve the binding of membrane-bound ligands such as receptor tyrosine kinases, G-protein coupled receptors, and integrin-linked kinase. These AKT proteins therefore regulate a wide variety of cellular functions including

cell proliferation, survival, metabolism, and angiogenesis in both normal and malignant cells. AKT proteins are recruited to the cell membrane by phosphatidylinositol 3,4,5-trisphosphate (PIP3) after phosphorylation of phosphatidylinositol 4,5-bisphosphate (PIP2) by PI3K. Subsequent phosphorylation of both threonine residue 308 and serine residue 473 is required for full activation of the AKT1 protein encoded by this gene. Phosphorylation of additional residues also occurs, for example, in response to insulin growth factor-1 and epidermal growth factor. Protein phosphatases act as negative regulators of AKT proteins by dephosphorylating AKT or PIP3. The PI3K/AKT signalling pathway is crucial for tumor cell survival. Survival factors can suppress apoptosis in a transcription-independent manner by activating AKT1 which then phosphorylates and inactivates components of the apoptotic machinery. AKT proteins also participate in the mammalian target of rapamycin (mTOR) signalling pathway which controls the assembly of the eukaryotic translation initiation factor 4F (eIF4E) complex and this pathway, in addition to responding to extracellular signals from growth factors and cytokines, is disregulated in many cancers. Mutations in this gene are associated with multiple types of cancer and excessive tissue growth including Proteus syndrome and Cowden syndrome 6, and breast, colorectal, and ovarian cancers. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jul 2020]

VALIDATION IMAGES



Sample: MCF-7(Human) Cell Lysate at 30 ug A549(Human) Cell Lysate at 30 ug Hela(Human) Cell Lysate at 30 ug Primary: Anti- AKT (bsm-33278M) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Mouse IgG at 1/20000 dilution Predicted band size: 56 kD Observed band size: 56 kD



Tissue/cell: Hela cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (MAKT) Monoclonal Antibody, Unconjugated (bsm-33278M) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Mouse IgG-CY3 antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

PRODUCT SPECIFIC PUBLICATIONS

[IF=17.694] Wang, Weili. et al. Engineering micro oxygen factories to slow tumour progression via hyperoxic microenvironments. NAT COMMUN. 2022 Aug;13(1):1-17 WB ; Human . 35918337

[IF=15.304] Yao Lei. et al. Phytochemical natural killer cells reprogram tumor microenvironment for potent immunotherapy of solid tumors. BIOMATERIALS. 2022 Jun;:121635 WB ; Mouse . 10.1016/j.biomaterials.2022.121635

[IF=9.685] Yang, Chong. et al. TRIM15 forms a regulatory loop with the AKT/FOXO1 axis and LASP1 to modulate the sensitivity of HCC cells to TKIs. CELL DEATH DIS. 2023 Jan;14(1):1-13 WB ; Human . 36670097

[IF=10.334] Li Gu. et al. Upregulation of CSNK1A1 induced by ITGB5 confers to hepatocellular carcinoma resistance to sorafenib in vivo by disrupting the EPS15/EGFR complex. PHARMACOL RES. 2023 Jun;192:106789 WB ; Human . 37149115

[IF=7.129] Qianfeng Liu. et al. Perfluoroalkyl substances promote breast cancer progression via ERα and GPER mediated PI3K/Akt and MAPK/Erk signaling pathways. ECOTOX ENVIRON SAFE. 2023 Jun;258:114980 WB ; Human . 37148752