

Akt(Ab-308) Antibody

Catalog No: #21055

Package Size: #21055-1 50ul #21055-2 100ul

Description

Product Name	Akt(Ab-308) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Antibodies were produced by immunizing rabbits with synthetic peptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific peptide.
Applications	WB IHC
Species Reactivity	Hu Ms Rt
Specificity	The antibody detects endogenous level of total Akt protein.
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around aa.306~310 (M-K-T-F-C) derived from Human AKT1.
Conjugates	Unconjugated
Target Name	Akt
Other Names	RAC-PK-alpha; Protein kinase B;
Accession No.	Swiss-Prot: P31749NCBI Protein: NP_001014431.1
Concentration	1.0mg/ml
Formulation	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C for long term preservation (recommended). Store at 4°C for short term use.

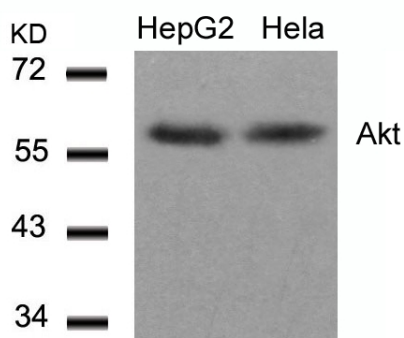
Application Details

Predicted MW: 60kd

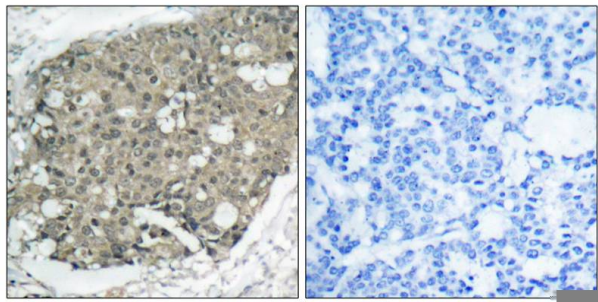
Western blotting: 1:500~1:1000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from HepG2 and Hela cells using Akt(Ab-308) Antibody #21055.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using Akt(Ab-308) Antibody #21055(left) or the same antibody preincubated with blocking peptide(right).

Background

General protein kinase capable of phosphorylating several known proteins. Phosphorylates TBC1D4. Signals downstream of phosphatidylinositol 3-kinase (PI3K) to mediate the effects of various growth factors such as platelet-derived growth factor (PDGF), epidermal growth factor (EGF), insulin and insulin-like growth factor I (IGF-I). Plays a role in glucose transport by mediating insulin-induced translocation of the GLUT4 glucose transporter to the cell surface. Mediates the antiapoptotic effects of IGF-I. Mediates insulin-stimulated protein synthesis by phosphorylating TSC2 at 'Ser-939' and 'Thr-1462', thereby activating mTORC1 signaling and leading to both phosphorylation of 4E-BP1 and in activation of RPS6KB1. Promotes glycogen synthesis by mediating the insulin-induced activation of glycogen synthase.

Tremblay F, et al. (2005) Diabetes; 54(9): 2674-84.

Xu BE, et al. (2005) J Biol Chem; 280(40): 34218-23.

Samuels Y, et al. (2005) Cancer Cell; 7(6): 561-73.

Di Maira G, et al. (2005) Cell Death Differ; 12(6): 668-77.

Published Papers

Massimo Nabissi, Maria Beatrice Morelli¹, Consuelo Amantini et al., TRPV2 channel negatively controls glioma cell proliferation and resistance to Fas-induced apoptosis in ERK-dependent manner., Carcinogenesis, 31(5):794-803(2010)

[PMID:20093382](#)

et al., Anti inflammatory and metabolic reprogramming effects of MENK produce antitumor response in CT26 tumor bearing mice.In J Leukoc Biol on 2020 Jan 29. by Tuo Y, Zhang Z, et al..PMID:31994797, , (2020)

[PMID:31994797](#)

et al., Combination of Ruthenium Complex and Doxorubicin Synergistically Inhibits Cancer Cell Growth by Down-Regulating PI3K/AKT Signaling Pathway.In Front Oncol on 2020 Feb 18 by Lin K, Rong Y, et al..PMID:32133289, , (2020)

[PMID:32133289](#)

et al., Phytoestrogens protect joints in collagen induced arthritis by increasing IgG glycosylation and reducing osteoclast activation.In Int Immunopharmacol on 2020 Mar 12 by Du N, Song L, et al..PMID:32172207, , (2020)

[PMID:32172207](#)

et al., MicroRNA-19a/b Regulates Multidrug Resistance in Human Gastric Cancer Cells by Targeting PTEN.In Biochem Biophys Res Commun on 2013 May 10 by Ting Li, Bin Zhang,et al..PMID: 23603256, , (2013)

[PMID:23603256](#)

et al., TRPV2 channel negatively controls glioma cell proliferation and resistance to Fas-induced apoptosis in ERK-dependent manner.In Carcinogenesis on 2010 May by Nabissi M, Morelli MB,et al..PMID:20093382, , (2010)

[PMID:20093382](#)

et al., Fatty Acid Synthase Regulates Proliferation and Migration of Colorectal Cancer Cells via HER2-PI3K/Akt Signaling Pathway.In Nutr Cancer on 2012 Aug by Nan Li, Xiaodong Bu,et al..PMID:22860766, , (2012)

[PMID:22860766](#)

el at., Suppression of Hypoxia-Induced HIF-1alpha Accumulation by VEGFR Inhibitors: Different Profiles of AAL993 Versus SU5416 and KRN633.In Cancer Lett on 2010 Oct 1 by Hyun Seung Ban, Masaharu Uno,et al..PMID:20378243, , (2010)

[PMID:20378243](#)

el at., Choline Prevents Fetal Overgrowth and Normalizes Placental Fatty Acid and Glucose Metabolism in a Mouse Model of Maternal Obesity.In J Nutr Biochem on 2017 Nov by Juha Nam , Esther Greenwald,et al..PMID: 28915389, , (2017)

[PMID:28915389](#)

el at., A MicroRNA Signature in Gestational Diabetes Mellitus Associated With Risk of Macrosomia.In Cell Physiol Biochem on 2015 by Jiandong Li, Liping Song et al..PMID:26302821, , (2015)

[PMID:26302821](#)

el at., In Vitro and In Vivo Evaluation of Antidiabetic Properties and Mechanisms of Ficus tikoua Bur.. In Nutrients on 2022 Oct 20 by Hanlei Wang, Kun Zhang,et al..PMID:36297098, , (2022)

[PMID:36297098](#)

Ziqiang Lin, Suo Wang, Yu Cao, Jialing Lin, Ailing Sun, Wei Huang, Jun Zhou, Qingxiong Hong el at., Bioinformatics and validation reveal the potential target of curcumin in the treatment of diabetic peripheral neuropathy, , (2024)

[PMID:](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.