10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DAPK2 Antibody

Catalog # ASC10117

Product Information

Application	WB, E, IHC-P
Primary Accession	Q9UIK4
Other Accession	BAA88063, 6521210
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	42898
Conjugate	Unconjugated
Application Notes	DAPK2 antibody can be used for detection of DAPK2 by Western blot at 1 g/mL. An approximately 42 kDa band can be detected. DAPK2 has no cross responses to DAPK1. Antibody can also be used for immunohistochemistry starting at 2 g/mL.

Additional Information

Gene ID	23604
Other Names	DAPK2 Antibody: DRP1, DRP-1, Death-associated protein kinase 2, DAP-kinase-related protein 1, DAP kinase 2, death-associated protein kinase 2
Target/Specificity	DAPK2; DAPK2 has no cross responses to DAPK1.
Reconstitution & Storage	DAPK2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	DAPK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	DAPK2
Function	Calcium/calmodulin-dependent serine/threonine kinase involved in multiple cellular signaling pathways that trigger cell survival, apoptosis, and autophagy. Regulates both type I apoptotic and type II autophagic cell death signals, depending on the cellular setting. The former is caspase-dependent, while the latter is caspase-independent and is characterized by the accumulation of autophagic vesicles. Acts as a mediator of anoikis and a suppressor of beta-catenin-dependent anchorage-independent growth of malignant epithelial cells. May play a role in granulocytic maturation (PubMed:17347302). Regulates granulocytic motility by controlling cell

	spreading and polarization (PubMed:24163421).
Cellular Location	Cytoplasm. Cytoplasmic vesicle, autophagosome lumen
Tissue Location	Expressed in neutrophils and eosinophils (PubMed:24163421). Isoform 2 is expressed in embryonic stem cells (at protein level). Isoform 1 is ubiquitously expressed in all tissue types examined with high levels in heart, lung and skeletal muscle

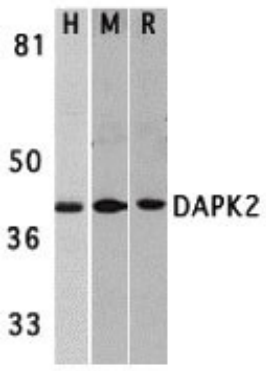
Background

DAPK2 Antibody: Apoptosis is mediated by death domain containing adapter molecules and a caspase family of proteases. Certain serine/threonine protein kinases, such as RIP and DAP kinase, are mediators of apoptosis. DAP kinase (DAPK) is pro-apoptotic calcium-regulated serine/threonine kinase containing death domain. Ectopic expression of DAPK induces cell death and suppresses oncogenic transformation. DAPK mediates IFNγ induced apoptosis. A novel DAP kinase-related protein was recently identified and designated DAPK2 and DRP-1. Ectopicly expressed DAPK2 induced apoptosis in various types of cells. DAPK has high sequence homology to ZIP kinase and DRAK1/2, and they represent a novel family of serine/threonine kinases, which mediates apoptosis through their catalytic activities. The messenger RNA of DAPK2 is expressed in multiple human tissues.

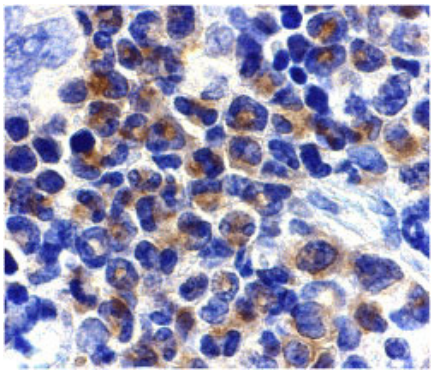
References

Kawai T, Nomura F, Hoshino K, Copeland NG, Gilbert DJ, Jenkins NA, Akira S. Death-associated protein kinase 2 is a new calcium/calmodulin-dependent protein kinase that signals apoptosis through its catalytic activity. Oncogene 1999;18(23):3471-80
Inbal B, Shani G, Cohen O, Kissil JL, Kimchi A. Death-associated protein kinase-related protein 1, a novel serine/threonine kinase involved in apoptosis. Mol Cell Biol 2000;20(3):1044-54 (WD0101)

Images



Western blot analysis of DAPK2 in A431 (H), mouse spleen (M), and rat kidney (R) lysates with DAPK2 antibody at 1 µg/mL.



Immunohistochemistry of DAPK2 in mouse spleen cells with DAPK2 antibody at 2 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.