

Rabbit Anti-AGK/MULK Polyclonal: RC0058-0.1ML

Intended Use: For Research Use Only

Description: AGK (acylglycerol kinase), also known as MULK (multi-substrate lipid kinase), is a 422 amino acid protein that phosphorylates monoacylglycerol and diacylglycerol to generate bioactive phospholipids lysophosphatidic acid and phosphatidic acid, respectively. It is highly expressed in muscle, heart, kidney and brain. Containing. When overexpressed, AGK increases the production and secretion of LPA, thereby transactivating EGFR and ERK signaling pathways, which in turn lead to increased cell growth. Due to its involvement of LPA overproduction, Research studies show that the kinase activity of AGK is required for the activation of PI3K-mTOR signaling and the subsequent enhancement of glycolysis in activated CD8+ T cells. Therefore, AGK is essential for the growth, proliferation, and antitumor function of activated CD8+ T cells. AGK is also implicated in the initiation and progression of prostate cancer.

Specifications

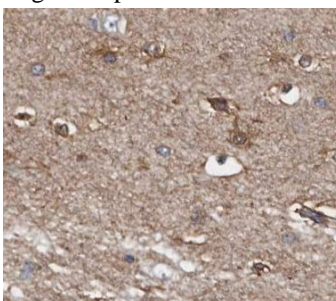
Clone: Polyclonal
 Source: Rabbit
 Isotype: IgG
 Reactivity: Human, mouse
 Immunogen: Synthesized peptide derived from the N-terminal region of human PTX3
 Localization: Mitochondrion membrane
 Formulation: Purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, WB
 Package:

Description	Catalog No.	Size
AGK/MULK Polyclonal Concentrated	RC0058-0.1ML	0.1 ml

IHC Procedure*

Positive Control Tissue: Heart, kidney, muscle, brain
 Concentrated Dilution: 100-300
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C
 Incubation Time and Temp: Overnight @ 4°C
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human brain tumor stained with anti-AGK using DAB

References:

1. Acylglycerol Kinase Mutated in Sengers Syndrome Is a Subunit of the TIM22 Protein Translocase in Mitochondria. Milena Vukotic, et al. Mol Cell. Aug 3;67(3):471-483.e7, 2017.
2. Sengers Syndrome-Associated Mitochondrial Acylglycerol Kinase Is a Subunit of the Human TIM22 Protein Import Complex. Yilin Kang, et al. Mol Cell. Aug 3;67(3):457-470.e5, 2017.
3. A novel acylglycerol kinase that produces lysophosphatidic acid modulates cross talk with EGFR in prostate cancer cells. Meryem Bektas, et al. J Cell Biol. Jun 6;169(5):801-11, 2005.