Data Sheet (Cat.No.TMAC-01686)

Anti-Glutaminase Antibody (8G424)

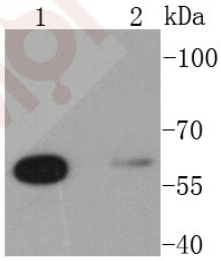
Product Details

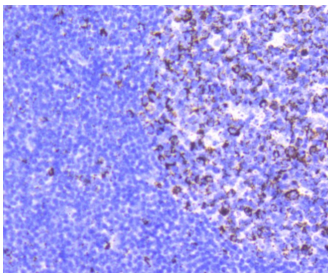
Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Conjugation:	Unconjugated
Molecular Weight:	Theoretical: 65 kDa.
Clone:	8G424
Purification:	ProA affinity purified

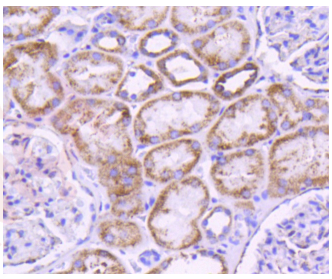
Applications

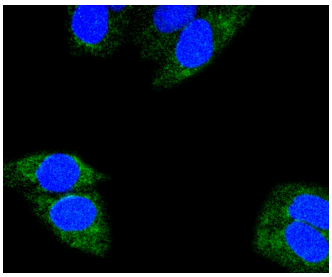
Verified Activity:

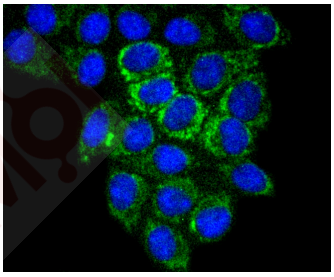
1. Western blot analysis of Glutaminase on different lysates using anti-Glutaminase antibody at 1/1,000 dilution. Positive control: Lane 1: Hela, Lane 2: 293.
2. Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Glutaminase antibody. Counter stained with hematoxylin.
3. Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Glutaminase antibody. Counter stained with hematoxylin.
4. ICC staining Glutaminase in Hela cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.
5. ICC staining Glutaminase in HepG2 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.











Application: ICC/IF,IHC,WB

Recommended: WB: 1:1000-2000; IHC: 1:50-200; ICC/IF: 1:50-200

Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: Recombinant Protein

Uniprot ID: O94925

Synonyms: GAM;CASGID;GAC;AAD20;DEE71;Glutaminase kidney isoform, mitochondrial;KIAA0838;GDPAG; KGA;L-glutamine amidohydrolase;GLSK;GLS;EIEE71;K-glutaminase;EC:3.5.1.2

Research Background

Glutamine is an important molecule involved in several cellular functions, including nitrogen and carbon transport, hepatic urea synthesis, renal ammoniagenesis, and gluconeogenesis. Glutamine is catabolized by either the liver-type (LGA) or kidney-type (KGA) glutaminase. KGA is mitochondrial specific protein whose expression in kidney is increased during metabolic acidosis. This process is mediated by an 8-base AU-sequence in KGA that functions as a pH-response element. The human KGA gene maps to chromosome 2, and produces three isoforms, designated KGA, GAC, and GAM, by alternative splicing. KGA is synthesized as a cytosolic protein that is transported to the mitochondria as an intermediate protein, and is further cleaved into the KGA isoform and the GAC isoform. The processing of the GAM isoform is unclear. The KGA isoform is abundant in brain and kidney, while the GAC isoform is principally expressed in cardiac muscle and pancreas. The GAM isoform is solely expressed in cardiac and skeletal muscle.

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