

KAT II (M-300): sc-67376

BACKGROUND

Kynurenine aminotransferases belong to the class I pyridoxal-phosphate-dependent aminotransferase family and contain the members KAT I, KAT II and KAT III. KAT II is a mitochondrial protein involved in lysine degradation. KAT II is expressed highly in liver, but can also be detected in heart, brain, kidney, pancreas, ovary and testis. Like KAT I, KAT II functions in the catalysis of the reaction L-2-aminoadipate + 2-oxoglutarate → 2-oxoglutaminate + L-glutamate. KAT II is thought to function as a homodimer.

REFERENCES

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- Yu, P., et al. 1999. Genomic organization and expression analysis of mouse kynurenine aminotransferase II, a possible factor in the pathophysiology of Huntington's disease. *Mamm. Genome* 10: 845-852.
- Battaglia, G., et al. 2000. Some metabotropic glutamate receptor ligands reduce kynurenate synthesis in rats by intracellular inhibition of kynurenine aminotransferase II. *J. Neurochem.* 75: 2051-2060.
- Kocki, T., et al. 2003. L-cysteine sulphinate, endogenous sulphur-containing amino acid, inhibits rat brain kynurenic acid production via selective interference with kynurenine aminotransferase II. *Neurosci. Lett.* 346: 97-100.
- Yu, P., et al. 2004. Biochemical and phenotypic abnormalities in kynurenine aminotransferase II-deficient mice. *Mol. Cell. Biol.* 24: 6919-6930.
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- Chon, H., et al. 2005. Crystal structure of a human kynurenine aminotransferase II homologue from *Pyrococcus horikoshii* OT3 at 2.20 Å resolution. *Proteins* 61: 685-688.
- Rzeski, W., et al. 2005. Demonstration of kynurenine aminotransferases I and II and characterization of kynurenic acid synthesis in cultured cerebral cortical neurons. *J. Neurosci. Res.* 80: 677-682.

CHROMOSOMAL LOCATION

Genetic locus: AADAT (human) mapping to 4q33; Aadat (mouse) mapping to 8 B3.1.

SOURCE

KAT II (M-300) is a rabbit polyclonal antibody raised against amino acids 126-425 mapping at the C-terminus of KAT II of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

KAT II (M-300) is recommended for detection of KAT II of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

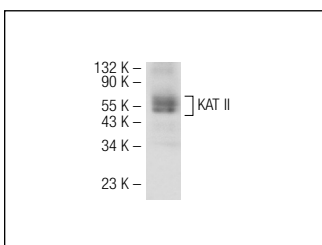
Suitable for use as control antibody for KAT II siRNA (h): sc-77358, KAT II siRNA (m): sc-77359, KAT II shRNA Plasmid (h): sc-77358-SH, KAT II shRNA Plasmid (m): sc-77359-SH, KAT II shRNA (h) Lentiviral Particles: sc-77358-V and KAT II shRNA (m) Lentiviral Particles: sc-77359-V.

Molecular Weight of KAT II: 47 kDa.

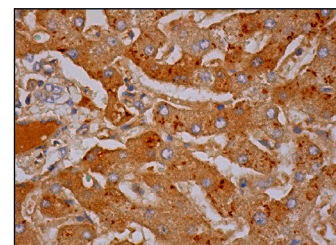
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



KAT II (M-300): sc-67376. Western blot analysis of KAT II expression in HeLa whole cell lysate.



KAT II (M-300): sc-67376. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes, bile duct cells and Kupffer cells.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.



Try **KAT II (G-4): sc-377158** or **KAT II (B-4): sc-365847**, our highly recommended monoclonal alternatives to KAT II (M-300).