

KAT II (H-301): sc-67377

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

1. Guidetti, P., et al. 1998. Characterization of rat brain kynurenine aminotransferases I and II. *J. Neurosci. Res.* 50: 457-465.
2. 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.
3. 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.
4. Kocki, T., et al. 2003. L-cysteine sulphinate, endogenous sulphur-containing amino acid, inhibits rat brain kynurenine acid production via selective interference with kynurenine aminotransferase II. *Neurosci. Lett.* 346: 97-100.
5. Yu, P., et al. 2004. Biochemical and phenotypic abnormalities in kynurenine aminotransferase II-deficient mice. *Mol. Cell. Biol.* 24: 6919-6930.
6. Wejksza, K., et al. 2005. Demonstration of kynurenine aminotransferases I and II and characterization of kynurenic acid synthesis in oligodendrocyte cell line (OLN-93). *Neurochem. Res.* 30: 963-968.
7. 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.
8. 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.
9. Guidetti, P., et al. 2006. Astrocytic localization of kynurenine aminotransferase II in the rat brain visualized by immunocytochemistry. *Glia* 55: 78-92.

CHROMOSOMAL LOCATION

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

SOURCE

KAT II (H-301) is a rabbit polyclonal antibody raised against amino acids 54-354 mapping within an internal region of KAT II of human origin.

PRODUCT

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

APPLICATIONS

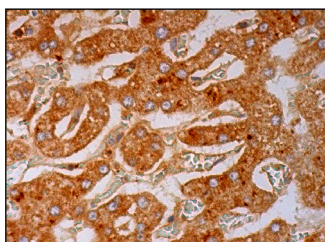
KAT II (H-301) is recommended for detection of KAT II isoforms 1 and 2 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (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.

Positive Controls: HeLa whole cell lysate: sc-2200.

DATA



KAT II (H-301): sc-67377. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **KAT II (G-4): sc-377158** or **KAT II (A-2): sc-515377**, our highly recommended monoclonal alternatives to KAT II (H-301).