

KAT III (A-7): sc-365219

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 III is widely expressed but is seen in higher abundance in liver, heart, kidney and neuroendocrine tissues. KAT III functions in the transamination of kynurenine to form kynurenic acid, a neuroprotective and anti-convulsant metabolite of tryptophan. Kynurenic acid is involved in synaptic transmission and has been implicated in a number of neurological disorders including schizophrenia and Huntington's disease.

REFERENCES

1. Alberati-Giani, D., et al. 1995. Cloning and characterization of a soluble kynurenine aminotransferase from rat brain: identity with kidney cysteine conjugate β -lyase. *J. Neurochem.* 64: 1448-1455.
2. Malherbe, P., et al. 1995. Identification of a mitochondrial form of kynurenine aminotransferase/glutamine transaminase K from rat brain. *FEBS Lett.* 367: 141-144.
3. Buchli, R., et al. 1996. Cloning and functional expression of a soluble form of kynurenine/ α -aminoadipate aminotransferase from rat kidney. *J. Biol. Chem.* 270: 29330-29335.
4. Baran, H., et al. 1997. Kynurenic acid and kynurenine aminotransferase in heart. *Pediatr. Res.* 41: 404-410.
5. Fang, J., et al. 2002. Isolation, characterization, and functional expression of kynurenine aminotransferase cDNA from the yellow fever mosquito, *Aedes aegypti*. *Insect Biochem. Mol. Biol.* 32: 943-950.
6. Mosca, M., et al. 2003. Tissue expression and translational control of rat kynurenine aminotransferase/glutamine transaminase K mRNAs. *Biochim. Biophys. Acta* 1628: 1-10.

CHROMOSOMAL LOCATION

Genetic locus: CCBL2 (human) mapping to 1p36.33; Ccbl2 (mouse) mapping to 3 H1.

SOURCE

KAT III (A-7) is a mouse monoclonal antibody raised against amino acids 1-65 mapping at the N-terminus of KAT III of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

KAT III (A-7) is available conjugated to agarose (sc-365219 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365219 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365219 PE), fluorescein (sc-365219 FITC), Alexa Fluor[®] 488 (sc-365219 AF488), Alexa Fluor[®] 546 (sc-365219 AF546), Alexa Fluor[®] 594 (sc-365219 AF594) or Alexa Fluor[®] 647 (sc-365219 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365219 AF680) or Alexa Fluor[®] 790 (sc-365219 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

KAT III (A-7) is recommended for detection of KAT III of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 III siRNA (h): sc-105589, KAT III siRNA (m): sc-77397, KAT III shRNA Plasmid (h): sc-105589-SH, KAT III shRNA Plasmid (m): sc-77397-SH, KAT III shRNA (h) Lentiviral Particles: sc-105589-V and KAT III shRNA (m) Lentiviral Particles: sc-77397-V.

Molecular Weight (predicted) of KAT III: 51 kDa.

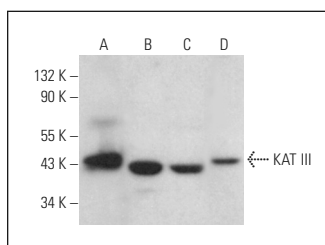
Molecular Weight (observed) of KAT III: 43 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, T24 cell lysate: sc-2292 or c4 whole cell lysate: sc-364186.

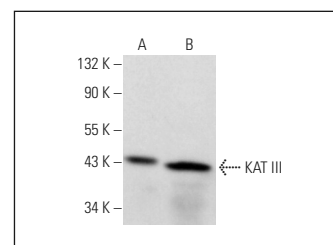
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



KAT III (A-7): sc-365219. Western blot analysis of KAT III expression in c4 (A), IMR-32 (B), Hep G2 (C) and EOC 20 (D) whole cell lysates.



KAT III (A-7): sc-365219. Western blot analysis of KAT III expression in T24 (A) and c4 (B) whole cell lysates.

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 for detailed protocols and support products.