ARGINASE II (A-10): sc-393496

BACKGROUND

Arginase I (also designated liver-type arginase), which is expressed almost exclusively in the liver, catalyzes the conversion of arginine to ornithine and urea. The human arginase I gene, which maps to chromosome 6q23.2, encodes a 322 amino acid protein. Arginase I exists as a homotrimeric protein and contains a binuclear manganese cluster. Arginase II catalyzes the same reaction as arginase I, but differs in its tissue specificity and subcellular location. Specifically, arginase II localizes to the mitochondria. Arginase II is expressed in non-hepatic tissues, with the highest levels of expression in the kidneys, but, unlike arginase I, is not expressed in liver. The human arginase II gene, which maps to chromosome 14q24.1, encodes a 354 amino acid protein. In addition, arginase II contains a putative amino-terminal mitochondrial localization sequence.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: ARG2 (human) mapping to 14q24.1; Arg2 (mouse) mapping to 12 C3.

SOURCE

arginase II (A-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 304-335 near the C-terminus of arginase II of human origin.

PRODUCT

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

arginase II (A-10) is available conjugated to agarose (sc-393496 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393496 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-393496 PE), fluorescein (sc-393496 FITC), Alexa Fluor® 488 (sc-393496 AF488) or Alexa Fluor® 647 (sc-393496 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-393496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

arginase II (A-10) is recommended for detection of arginase II of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

arginase II (A-10) is also recommended for detection of arginase II in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for arginase II siRNA (h): sc-29729, arginase II siRNA (m): sc-29730, arginase II shRNA Plasmid (h): sc-29729-SH, arginase II shRNA Plasmid (m): sc-29730-SH, arginase II shRNA (h) Lentiviral Particles: sc-29729-V and arginase II shRNA (m) Lentiviral Particles: sc-29730-V.

Molecular Weight of arginase II: 40 kDa.

Positive Controls: arginase II (h): 293T Lysate: sc-114274.

DATA

arginase II (A-10) HRP: sc-393496 HRP. Direct western blot analysis of arginase II expression in non-transfected: sc-117752 (A) and human arginase II transfected: sc-114274 (B) 293T whole cell lysates.

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SELECT PRODUCT CITATIONS


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.