



Arginine (5D1): sc-57625

BACKGROUND

Arginine is an α -amino acid that is synthesized by humans in the urea cycle and is also found in many foods, including chocolate, wheat germ and flour, dairy products, beef, pork and nuts. Arginine is basic with a long side chain nearest to the backbone that is carbon-containing and hydrophobic and a complex guanidinium group on the end. The guanidinium group has a pKa of 12.48 and is positively charged in neutral, acidic and even most basic environments. Since Arginine has the ability to easily form hydrogen bonds, it is usually found on the outside of the proteins where it can interact with the polar environment. Arginine plays a key role in many biological processes, including cell division, wound healing, removal of ammonia from the body, immune function and the release of hormones. Arginine also functions as the immediate precursor of nitric oxide, urea, ornithine and agmatine.

REFERENCES

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2. Castillo, L., deRojas, T.C., Chapman, T.E., Vogt, J., Burke, J.F., Tannenbaum, S.R. and Young, V.R. 1993. Splanchnic metabolism of dietary Arginine in relation to nitric oxide synthesis in normal adult man. *Proc. Natl. Acad. Sci. USA* 90: 193-197.
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5. Morris, S.M. 2004. Enzymes of Arginine metabolism. *J. Nutr.* 134: 2743-2747.
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SOURCE

Arginine (5D1) is a mouse monoclonal antibody raised against modified monomethyl Arginine.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

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

PRODUCT

Each vial contains 100 μ l ascites containing IgG₁ with < 0.1% sodium azide.

APPLICATIONS

Arginine (5D1) is recommended for detection of free and bound NG-monomethyl Arginine by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with NG-NG-dimethyl Arginine.

RESEARCH USE

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