

AMZ1 (N-14): sc-163681

BACKGROUND

AMZ1 (archaelysin family metalloproteinase 1), also known as archaemetzincin-1 or archeobacterial metalloproteinase-like protein 1, is a 498 amino acid protein belonging to the peptidase M54 family. Encoded by a gene that maps to human chromosome 7p22.3, AMZ1 is conserved in chimpanzee, canine, bovine, mouse, rat and chicken. Predominantly expressed in heart and liver, AMZ1 is also expressed in kidney, pancreas and testis, and in fetal tissues such as kidney, liver, lung and brain. AMZ1 participates in metal ion binding and functions as a zinc metalloprotease. AMZ1 is inhibited by both general metalloprotease inhibitors o-phenanthroline and batimastat. Exhibiting aminopeptidase activity, AMZ1 acts against neurogranin *in vitro*, but does not hydrolyze angiotensin. AMZ1 is also significantly inhibited by epimas-tatin hydrochloride, an aminopeptidase inhibitor.

REFERENCES

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- Swingler, T.E., et al. 2009. Degradome expression profiling in human articular cartilage. *Arthritis Res. Ther.* 11: R96.
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CHROMOSOMAL LOCATION

Genetic locus: AMZ1 (human) mapping to 7p22.3; Amz1 (mouse) mapping to 5 G2.

SOURCE

AMZ1 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of AMZ1 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.

Blocking peptide available for competition studies, sc-163681 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

AMZ1 (N-14) is recommended for detection of AMZ1 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with AMZ2.

AMZ1 (N-14) is also recommended for detection of AMZ1 in additional species, including canine and bovine.

Suitable for use as control antibody for AMZ1 siRNA (h): sc-89643, AMZ1 siRNA (m): sc-141056, AMZ1 shRNA Plasmid (h): sc-89643-SH, AMZ1 shRNA Plasmid (m): sc-141056-SH, AMZ1 shRNA (h) Lentiviral Particles: sc-89643-V and AMZ1 shRNA (m) Lentiviral Particles: sc-141056-V.

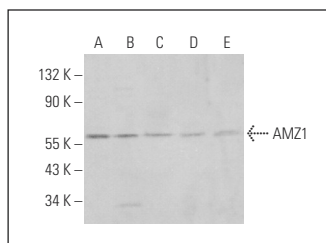
Molecular Weight of AMZ1: 55 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



AMZ1 (N-14): sc-163681. Western blot analysis of AMZ1 expression in Jurkat (A), HeLa (B), K-562 (C), Hep G2 (D) and MIA PaCa-2 (E) whole cell lysates.

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.