

AMZ2 (Q-12): sc-167081

BACKGROUND

AMZ2 (archaelysin family metalloproteinase 2), also known as archaemetzincin-2 or archeobacterial metalloproteinase-like protein 2, is a 360 amino acid protein belonging to the peptidase M54 family. Encoded by a gene that maps to human chromosome 17q24.2, AMZ2 is predominantly expressed in heart and testis. AMZ2 is also expressed in kidney, liver, pancreas, lung, brain and placenta, and in fetal tissues such as kidney, liver, lung and brain. AMZ2 participates in metal ion binding and functions as a zinc metalloprotease. AMZ2 is inhibited by both general metalloprotease inhibitors o-phenanthroline and batimastat. Exhibiting aminopeptidase activity, AMZ2 acts against angiotensin *in vitro*, but does not hydrolyze either Neurogranin or angiotensin. AMZ2 is also significantly inhibited by Epimastatin hydrochloride, an aminopeptidase inhibitor.

REFERENCES

- Díaz-Perales, A., Quesada, V., Peinado, J.R., Ugalde, A.P., Alvarez, J., Suárez, M.F., Gomis-Rüth, F.X. and López-Otín, C. 2005. Identification and characterization of human archaemetzincin-1 and -2, two novel members of a family of metalloproteases widely distributed in Archaea. *J. Biol. Chem.* 280: 30367-30375.
- Higuchi, M.L., Santos, M.H., Roggerio, A., Kawakami, J.T., Bezerra, H.G. and Canzian, M. 2006. A role for archaeal organisms in development of atherosclerotic vulnerable plaques and myxoid matrices. *Clinics* 61: 473-478.
- Peñalver-Mellado, M., García-Heras, F., Padmanabhan, S., García-Moreno, D., Murillo, F.J. and Elías-Arnanz, M. 2006. Recruitment of a novel zinc-bound transcriptional factor by a bacterial HMGA-type protein is required for regulating multiple processes in *Myxococcus xanthus*. *Mol. Microbiol.* 61: 910-926.
- Quesada, V., Ordóñez, G.R., Sánchez, L.M., Puente, X.S. and López-Otín, C. 2009. The Degradome database: mammalian proteases and diseases of proteolysis. *Nucleic Acids Res.* 37: D239-D243.
- Elías-Arnanz, M., Padmanabhan, S. and Murillo, F.J. 2010. The regulatory action of the myxobacterial CarD/CarG complex: a bacterial enhanceosome? *FEMS Microbiol. Rev.* 34: 764-778.
- Waltersperger, S., Widmer, C., Wang, M. and Baumann, U. 2010. Crystal structure of archaemetzincin amza from *Methanopyrus kandleri* at 1.5 Å resolution. *Proteins* 78: 2720-2723.

CHROMOSOMAL LOCATION

Genetic locus: AMZ2 (human) mapping to 17q24.2; Amz2 (mouse) mapping to 11 E1.

SOURCE

AMZ2 (Q-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of AMZ2 of human origin.

STORAGE

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

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-167081 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AMZ2 (Q-12) is recommended for detection of AMZ2 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 AMZ1.

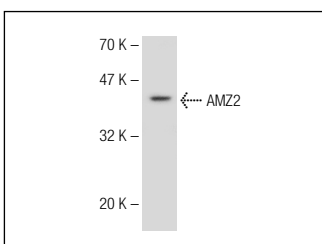
AMZ2 (Q-12) is also recommended for detection of AMZ2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for AMZ2 siRNA (h): sc-94228, AMZ2 siRNA (m): sc-141057, AMZ2 shRNA Plasmid (h): sc-94228-SH, AMZ2 shRNA Plasmid (m): sc-141057-SH, AMZ2 shRNA (h) Lentiviral Particles: sc-94228-V and AMZ2 shRNA (m) Lentiviral Particles: sc-141057-V.

Molecular Weight of AMZ2: 41 kDa.

Positive Controls: A-10 cell lysate: sc-3806, Hep G2 cell lysate: sc-2227 or COLO 320DM cell lysate: sc-2226.

DATA



AMZ2 (Q-12): sc-167081. Western blot analysis of AMZ2 expression in A-10 whole cell lysate.

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.