

# AMZ2 (E-4): sc-365345

## 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

- Higuchi, M.L., et al. 2006. A role for archaeal organisms in development of atherosclerotic vulnerable plaques and myxoid matrices. *Clinics* 61: 473-478.
- Peñalver-Mellado, M., et al. 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., et al. 2009. The Degradome database: mammalian proteases and diseases of proteolysis. *Nucleic Acids Res.* 37: 239-243.
- Elías-Arnanz, M., et al. 2010. The regulatory action of the myxobacterial CarD/CarG complex: a bacterial enhanceosome? *FEMS Microbiol. Rev.* 34: 764-778.
- Waltersperger, S., et al. 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.

## SOURCE

AMZ2 (E-4) is a mouse monoclonal antibody raised against amino acids 1-270 mapping at the N-terminus of AMZ2 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AMZ2 (E-4) is available conjugated to agarose (sc-365345 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365345 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365345 PE), fluorescein (sc-365345 FITC), Alexa Fluor<sup>®</sup> 488 (sc-365345 AF488), Alexa Fluor<sup>®</sup> 546 (sc-365345 AF546), Alexa Fluor<sup>®</sup> 594 (sc-365345 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-365345 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-365345 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-365345 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

AMZ2 (E-4) is recommended for detection of AMZ2 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

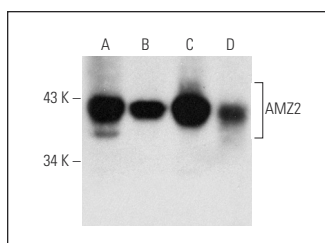
Molecular Weight of AMZ2: 41 kDa.

Positive Controls: Hep G2 whole cell lysate: sc-2227, COLO 320DM whole cell lysate: sc-2226 or HEK293 whole cell lysate: sc-45136.

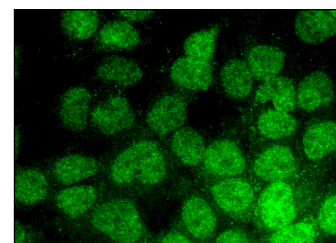
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



AMZ2 (E-4): sc-365345. Western blot analysis of AMZ2 expression in NTERA-2 cl.D1 (A), Hep G2 (B), COLO 320DM (C) and HEK293 (D) whole cell lysates.



AMZ2 (E-4): sc-365345. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

## 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](http://www.scbt.com) for detailed protocols and support products.