

ASPH (F-7): sc-365012

BACKGROUND

Aspartyl/asparaginyl β -hydroxylase (ASPH) is a widely-expressed type II membrane protein involved in calcium homeostasis. Located in the endoplasmic reticulum, ASPH specifically hydroxylates an Asp or Asn residue in the epidermal growth factor-like (EGF) domains of several proteins, using iron as a cofactor. The ASPH gene encodes three proteins, ASPH, Junctin and Junctate (or Humbug), that differ significantly in their C-terminal domains. These ASPH gene products are expressed as five transcript variants that differ by their roles in calcium storage and release, hydroxylation capabilities and tissue specificity. While all ASPH variants are expressed in skeletal muscle, only some are detected in heart, brain, pancreas, placenta, lung, liver and kidney tissues. In the lumen of the endoplasmic reticulum, ASPH can be processed into two different forms.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ASPH (human) mapping to 8q12.3; AspH (mouse) mapping to 4 A1.

SOURCE

ASPH (F-7) is a mouse monoclonal antibody raised against amino acids 382-681 mapping within an internal region of ASPH of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

ASPH (F-7) is recommended for detection of ASPH of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for ASPH siRNA (h): sc-44989, ASPH siRNA (m): sc-44990, ASPH shRNA Plasmid (h): sc-44989-SH, ASPH shRNA Plasmid (m): sc-44990-SH, ASPH shRNA (h) Lentiviral Particles: sc-44989-V and ASPH shRNA (m) Lentiviral Particles: sc-44990-V.

Molecular Weight of full-length ASPH: 90 kDa.

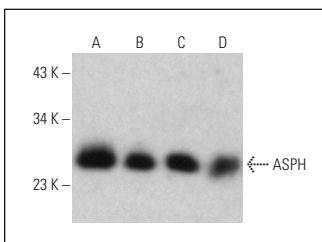
Molecular Weight of ASPH isoforms Junctin/Junctate: 26/32 kDa.

Positive Controls: A-673 cell lysate: sc-2414, SJRH30 cell lysate: sc-2287 or Sol8 cell lysate: sc-2249.

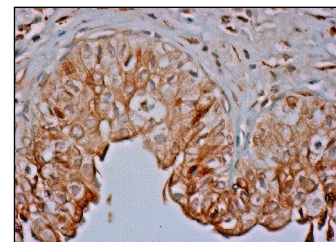
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® 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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ASPH (F-7): sc-365012. Western blot analysis of ASPH expression in A-673 (A), SJRH30 (B), Sol8 (C) and L6 (D) whole cell lysates.



ASPH (F-7): sc-365012. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic and membrane staining of urothelial cells.

STORAGE

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