

HSPA12A (E-13): sc-104317

BACKGROUND

The heat shock proteins (HSPs) comprise a group of highly conserved, abundantly expressed proteins with diverse functions, including the assembly and sequestering of multi-protein complexes, the transportation of nascent polypeptide chains across cellular membranes and the regulation of protein folding. HSPA12A (heat shock 70 kDa protein 12A) is a 675 amino acid protein that belongs to the HSP 70 family and is expressed in muscle, kidney and brain where it may play a role in cellular metabolism and regulation of neuronal function. The gene encoding HSPA12A maps to human chromosome 10, which houses over 1,200 genes and comprises nearly 4.5% of the human genome. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromic deafness, Wolman's syndrome, Cowden syndrome, multiple endocrine neoplasia type 2 and porphyria.

REFERENCES

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2. Alimova-Kost, M.V., Imreh, S., Buchman, V.L. and Ninkina, N.N. 1998. Assignment1 of phosphotriesterase-related gene (PTER) to human chromosome band 10p12 by *in situ* hybridization. Cytogenet. Cell Genet. 83: 16-17.
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CHROMOSOMAL LOCATION

Genetic locus: HSPA12A (human) mapping to 10q25.3; Hspa12a (mouse) mapping to 19 D2.

SOURCE

HSPA12A (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HSPA12A 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-104317 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

HSPA12A (E-13) is recommended for detection of HSPA12A 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 other HSPA family members.

HSPA12A (E-13) is also recommended for detection of HSPA12A in additional species, including bovine and avian.

Suitable for use as control antibody for HSPA12A siRNA (h): sc-90428, HSPA12A siRNA (m): sc-105546, HSPA12A shRNA Plasmid (h): sc-90428-SH, HSPA12A shRNA Plasmid (m): sc-105546-SH, HSPA12A shRNA (h) Lentiviral Particles: sc-90428-V and HSPA12A shRNA (m) Lentiviral Particles: sc-105546-V.

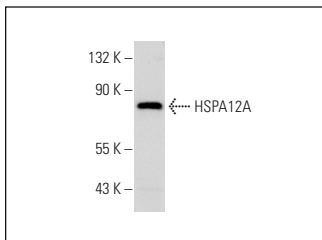
Molecular Weight of HSPA12A: 75 kDa.

Positive Controls: mouse brain extract: sc-2253.

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



HSPA12A (E-13): sc-104317. Western blot analysis of HSPA12A expression in mouse brain tissue extract.

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.