

ISCA1/1L (G-12): sc-133426

BACKGROUND

Iron-sulfur cluster assembly (ISCA) proteins are members of the *hesB/iscA* family that play an essential role in many biological processes such as the assembly of mitochondrial iron-sulfur proteins and the binding of iron-sulfur protein intermediates. ISCA1L (iron-sulfur cluster assembly 1-like) and ISCA1 (iron-sulfur cluster assembly 1), also known as ISA1, HBLD2 or *hlscA*, are implicated in the biogenesis of iron-sulfur clusters. ISCA1 is encoded by a gene located on human chromosome 9 whereas ISCA1L is encoded by a gene located on human chromosome 5. Chromosome 9 houses over 900 genes, comprises nearly 4% of the human genome and encompasses the largest interferon family gene cluster. Chromosome 5 contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm or of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ISCA1 (human) mapping to 9q21.33, ISCA1L (human) mapping to 5q12.1; *IscA1* (mouse) mapping to 13 B2.

SOURCE

ISCA1/1L (G-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ISCA1/1L of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133426 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ISCA1/1L (G-12) is recommended for detection of ISCA1/1L of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ISCA1/1L (G-12) is also recommended for detection of ISCA1/1L in additional species, including equine, canine and porcine.

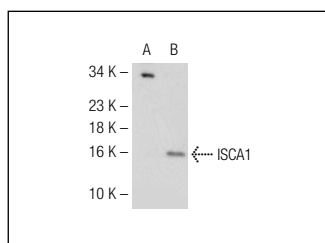
Molecular Weight of ISCA1/1L: 16 kDa.

Positive Controls: ISCA1 (h): 293T Lysate: sc-117364.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ISCA1/1L (G-12): sc-133426. Western blot analysis of ISCA1 expression in non-transfected: sc-117752 (A) and human ISCA1 transfected: sc-117364 (B) 293T whole cell lysates.

RESEARCH USE

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

STORAGE

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