

COA7 (A-13): sc-163856

BACKGROUND

The cytochrome c oxidase (COX) family of proteins function as the final electron donor in the respiratory chain to drive a proton gradient across the inner mitochondrial membrane, ultimately resulting in the production of water. COA7 (cytochrome c oxidase assembly factor 7), also known as RESA1, SELRC1 or C1orf163, is a 231 amino acid mitochondrial protein that belongs to the hcp β -lactamase family. Consisting of five Sel1-like repeats, COA7 may be associated with respiratory chain assembly. COA7 is encoded by a gene located on human chromosome 1p32.3. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene, which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: COA7 (human) mapping to 1p32.3; Coa7 (mouse) mapping to 4 C7.

SOURCE

COA7 (A-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COA7 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-163856 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

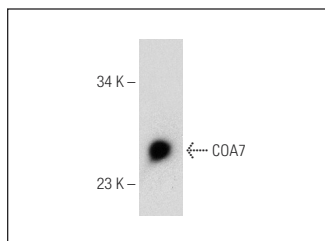
COA7 (A-13) is recommended for detection of COA7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other C1orf family members.

Suitable for use as control antibody for COA7 siRNA (h): sc-88458, COA7 siRNA (m): sc-108605, COA7 shRNA Plasmid (h): sc-88458-SH, COA7 shRNA Plasmid (m): sc-108605-SH, COA7 shRNA (h) Lentiviral Particles: sc-88458-V and COA7 shRNA (m) Lentiviral Particles: sc-108605-V

Molecular Weight of COA7: 26 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

DATA



COA7 (A-13): sc-163856. Western blot analysis of COA7 expression in IMR-32 whole cell lysate.

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 or our catalog for detailed protocols and support products.