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COX11 (h): 293T Lysate: sc-174228

BACKGROUND

Cytochrome c oxidase (COX) is the terminal enzyme in the electron transfer chain, functioning as a transmembrane proton pump that builds an electrochemical gradient with chemical energy from the reduction of O₂. Cytochrome c oxidase assembly protein COX11 is an intracellular mitochondrial membrane protein necessary for the construction of an active COX complex. COX11 contains a single transmembrane helix downstream of the N-terminal, mitochondrial targeting sequence and a C-terminal Cu(I)-binding domain. The assembly of COX requires the delivery of metal cofactors. Along with COX12 and SCO1/2, COX11 acts as a metal ion chaperone necessary for copper insertion into CuA and CuB redox-active copper centers of COX in eukaryotes.

REFERENCES

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4. Horvath, R., et al. 2005. Congenital cataract, muscular hypotonia, developmental delay and sensorineural hearing loss associated with a defect in copper metabolism. *J. Inherit. Metab. Dis.* 28: 479-492.
5. Guo, D., et al. 2005. Physical interaction and functional coupling between ACDP4 and the intracellular ion chaperone COX11, an implication of the role of ACDP4 in essential metal ion transport and homeostasis. *Mol. Pain* 1: 15.
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CHROMOSOMAL LOCATION

Genetic locus: COX11 (human) mapping to 17q22.

PRODUCT

COX11 (h): 293T Lysate represents a lysate of human COX11 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

COX11 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive COX11 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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