Supplementary Materials and Methods.

Western Blot and Protein carbonylation antibodies. The primary monoclonal antibodies developed in our lab and used in this study were: anti-HSP60 (1:5,000), anti-NADH-9 (1:1,000), anti-β-F1-ATPase (1:20,000), anti-LDH-A (1:1,000), anti-GAPDH (1:20,000) and anti-PKM2 (1:1,000) (Acebo et al., 2009). The monoclonal antibody specifically recognizing the human (Sanchez-Cenizo et al., 2010) and mouse (Molecular Probes) IF1 proteins were used at 1:200 dilution. Other antibodies used were: anti-β-actin (1:20,000), anti-tubulin (1:5,000) and anti-catalase (1:5,000) from Sigma-Aldrich; anti-SDH (1:1000) from Life Technologies; anti-Complex III subunit Core 2 (1:1,000), anti-COXI (1:1,000), anti-COXIV (1:1,000) and anti-SOD1 (1:1,000) from Abcam; anti-SOD2 (1:5,000) from Santa Cruz Biotechnology, Inc.; anti-PAR (1:1000) from Enzo Life Science Inc.; anti-IκBα (1:1,000), anti-Akt (1:1,000), anti-p-Akt (1:1,000), anti-p-p70S6K (1:1,000), anti-Bcl-xL (1:1,000) and anti-Bcl-2 (1:1,000) from Cell Signaling Technology Inc. Peroxidase-conjugated anti-mouse, anti-goat or anti-rabbit IgGs (Nordic Immunology; 1:3,000) were used as secondary antibodies.

For the determination of protein carbonylation, dinitrophenylhydrazine (DNPH) derivatization was carried out on 20 μg of proteins derived from brain or neuronal extracts. Samples were fractionated on SDS–12% PAGE. The antibodies used were rabbit anti-DNP (1:150) and goat anti-rabbit IgGs (1:300). The blots were revealed using the ECL® reagent (Amersham Pharmacia Biotech). The intensity of the bands was quantified using a Kodak DC120 digital camera and the Kodak 1D Analysis Software.

Supplementary References.

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