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Anti-AIF Antibody, clone 3C11 clone 3C11, from mouse

Art. ID	SAF-MABC1609
Unit	EA
Deliverydetails	No Dangerous Good

Description

Apoptosis-inducing factor 1, mitochondrial (UniProt: O95831, also known as Programmed cell death protein 8) is encoded by the AIFM1 (also known as AIF, PDCD8) gene (Gene ID: 9131) in human. AIF is a nuclear encoded flavoprotein that is generally confined to the mitochondrial intermembrane space and functions both as NADH oxidoreductase and as regulator of apoptosis. Six isoformsi of AIF have been described that are produced by alternative splicing. Under normal conditions, a 54-residue N-terminal (transit peptide) segment is first proteolytically removed during or just after translocation into the mitochondrial intermembrane space (IMS) by the mitochondrial processing peptidase to form the inner-membrane-anchored mature form (AIFmit). Upon induction of apoptosis, it is further proteolytically processed at to generate the mature form, which is confined to the mitochondrial IMS in a soluble form (AIFsol). AIFsol is released to the cytoplasm in response to specific death signals, and translocated to the nucleus, where it induces nuclear apoptosis in a caspase-independent manner. AIF also functions as an anti-apoptotic factor in normal mitochondria via its NADH oxidoreductase activity. Once released from mitochondria it translocates to the nucleus to induce caspase-independent fragmentation of chromosomal DNA. Mutations in AIF gene are linked to combined oxidative phosphorylation deficiency 6 that is characterized by psychomotor delay, hypotonia, areflexia, and muscle weakness and wasting. Defects in this gene are also known to cause Cowchock syndrome that leads to early childhood onset of a slowly progressive axonal sensorimotor neuropathy.