

Recombinant Human AIF protein ab151343

描述

产品名称	重组人AIF蛋白
纯度	> 95 % SDS-PAGE. Greater than 95% as determined by SEC-HPLC and reducing SDS-PAGE
内毒素水平	< 1.000 Eu/μg
表达系统	Escherichia coli
Accession	<u>O95831</u>
蛋白长度	Protein fragment
无动物成分	No
性质	Recombinant
种属	Human
序列	MGSSHHHHHSSGLVPRGSHMEEVPQDKAPSHVPFLLIGGGT AAFAAARS IRARDPGARVLIVSEDPPEL PYMRPPLSKELWFSDDPNVTKTL RFKQWNGK ERSIYFQPPSFYVSAQDLPHIENGGVAVLTGKKVVQLDVRDN MVKLDGNS QITYEKCLIATGGTPRSLSAIDRAGAEVKSRTTLFRKIGDFR SLEKISRE VKSITIIIGGGFLGSELACALGRKARALGTEVIQLFPEKGNMG KILPEYLS NWTMEKVRREGVKVMPNAIVQSVGVSSGKLLIKLKDGRKVVET DHIVA AVG LEPNVELAKTGGLEIDSDFGGFRVNAELQARSNIWVAGDAAC FYDIKLGR RRVEHHDHAVVSGRLAGENMTGAAKPYWHQSMFWSDLGPDVG YEAIGLVD SSLPTVGVFAKATAQDNPKSATEQSGTGIRSESETESEASEI TIPPSTPA VPQAPVQGEDYGKGVIFYL RDKVVVGIVLWNIFNRMPIARKI IKDGEQHE DLNEVAKLFNIHED
预测分子量	67 kDa including tags
氨基酸	121 to 613
标签	His tag N-Terminus

技术指标

Our **Abpromise guarantee** covers the use of **ab151343** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE
	HPLC
形式	Lyophilized

制备和贮存

稳定性和存储 Shipped at 4°C. After reconstitution store at -20°C. Avoid freeze / thaw cycles.

pH: 7.20

Constituents: 99% Phosphate Buffer, 0.88% Sodium chloride

复溶 Dissolve the lyophilized protein in 1X PBS. It is not recommended to reconstitute to a concentration less than 100 µg/ml.

常规信息

功能 Probable oxidoreductase that has a dual role in controlling cellular life and death; during apoptosis, it is translocated from the mitochondria to the nucleus to function as a proapoptotic factor in a caspase-independent pathway, while in normal mitochondria, it functions as an antiapoptotic factor via its oxidoreductase activity. The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e., caspase-independent fragmentation of chromosomal DNA. Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis. Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells. Binds to DNA in a sequence-independent manner.

疾病相关 Defects in AIFM1 are the cause of combined oxidative phosphorylation deficiency type 6 (COXPD6) [MIM:300816]. It is a mitochondrial disease resulting in a neurodegenerative disorder characterized by psychomotor delay, hypotonia, areflexia, muscle weakness and wasting.

序列相似性 Belongs to the FAD-dependent oxidoreductase family.

翻译后修饰 Under normal conditions, a 54-residue N-terminal segment is first proteolytically removed during or just after translocation into the mitochondrial intermembrane space (IMS) by the mitochondrial processing peptidase (MPP) to form the inner-membrane-anchored mature form (AIFmit). During apoptosis, it is further proteolytically processed at amino-acid position 101 leading to the generation of 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.

细胞定位 Mitochondrion intermembrane space. Mitochondrion inner membrane. Cytoplasm. Nucleus. Cytoplasm > perinuclear region. Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). During apoptosis, further proteolytic processing leads to a 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. Colocalizes with EIF3G in the nucleus and perinuclear region.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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