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Datasheet for ABIN1096041
AIF Protein (AA 121-613) (His tag)

Overview

Quantity:	50 µg
Target:	AIF (AIFM1)
Protein Characteristics:	AA 121-613
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This AIF protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human Apoptosis-Inducing Factor 1 Mitochondrial/AIFM1 (N-6His)
Sequence:	<p>MGSSHHHHHH SSSLVPRGSH MEEVPQDKAP SHVPFLLIGG GTAFAAARS IRARDPGARV LIVSEDPPEL YMRPPLSKEL WFSDDPNVTK TLRFKQWNGK ERSIYFQPPS FYVSAQDLPH IENGGVAVLT GKKVQLDVR DNMVKLNDGS QITYEKCLIA TGGTPRSLSA IDRAGAEVKS RTTLFRKIGD FRSLEKISRE VKSITIIGGG FLGSELACAL GRKARALGTE VIQLFPEKGN MGKILPEYLS NWTMEKVRRE GVKVMPNAIV QSVGVSSEKGL LIKLDGRKV ETDHIVA AVG LEPNVELAKT GGLEIDSDFG GFRVNAELQA RSNIWVAGDA ACFYDIKLR RRV EHHDHAV VSGRLAGENM TGAAPYWHQ SMFWSDLGPD VGYEAIGLVD SSLPTVGVFA KATAQDNPKS ATEQSGTGIR SESETESEAS EITIPPSTPA VPQAPVQGED YGKGVIFYLR DKVVVGIVLW NIFNRMPIAR KIIKDGEQHE DLNEVAKLFN IHED</p>
Characteristics:	Recombinant Human Apoptosis-Inducing Factor 1, Mitochondrial/AIFM1 is produced by our E. coli expression system. The target protein is expressed with sequence (Glu121-Asp613) of Human AIFM1 fused with a 6His tag at the N-terminus.

Product Details

Purity:	> 95 % as determined by reducing SDS-PAGE.
Sterility:	0.2 µm filtered
Endotoxin Level:	Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test

Target Details

Target:	AIF (AIFM1)
Alternative Name:	AIF (AIFM1 Products)
Sub Type:	Fusionprotein
Background:	<p>Apoptosis-Inducing Factor 1, Mitochondrial (AIFM1) is a flavoprotein essential for nuclear disassembly in apoptotic cells that is found in the mitochondrial intermembrane space in healthy cells. 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. AIFM1 interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis. It binds to DNA in a sequence-independent manner and plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells. References Tezel G, et al. Immunoproteomic analysis of potential serum biomarker candidates in human glaucoma. PMID: 23150628 [PubMed - indexed for MEDLINE] PMID: PMC3522442 http://www.ncbi.nlm.nih.gov/pubmed/23150628</p> <p>Alternative Names: Apoptosis-Inducing Factor 1 Mitochondrial, Programmed Cell Death Protein 8, AIFM1, AIF, PDCD8</p>
Molecular Weight:	56.2 kDa
UniProt:	O95831
Pathways:	Apoptosis , Positive Regulation of Endopeptidase Activity , Cell Redox Homeostasis , Smooth Muscle Cell Migration , Warburg Effect

Application Details

Restrictions:	For Research Use only
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Handling

Format:	Lyophilized
Reconstitution:	It is not recommended to reconstitute to a concentration less than 100 µg/mL. Dissolve the lyophilized protein in ddH ₂ O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Buffer:	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.2.
Handling Advice:	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.
Storage:	4 °C/-20 °C/-80 °C
Storage Comment:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Expiry Date:	3 months