

# Recombinant Human AIFM1 Protein (His Tag)

Catalog Number:PKSH032089



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

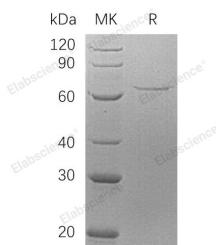
## Description

<b>Synonyms</b>	Apoptosis-Inducing Factor 1 Mitochondrial;Programmed Cell Death Protein 8;AIFM1;AIF;PDCD8
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Glu121-Asp613
<b>Accession</b>	O95831
<b>Calculated Molecular Weight</b>	56.2 kDa
<b>Observed molecular weight</b>	68 kDa
<b>Tag</b>	N-His

## Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
<b>Shipping</b>	This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C.
<b>Formulation</b>	Supplied as a 0.2 $\mu$ m filtered solution of PBS, 50% Glycerol, 2mM EDTA, 0.5M Argine, 5% Trehalose, pH 7.4.
<b>Reconstitution</b>	Not Applicable

## Data



> 95 % as determined by reducing SDS-PAGE.

## Background

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 casapse-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.

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