

## 32-7250: Recombinant Human Apoptosis-Inducing Factor 1 Mitochondrial/AIFM1 (N-6His)

**Gene :** AIFM1  
**Gene ID :** 9131  
**Uniprot ID :** O95831

### Description

Source: E.coli.  
MW :56.2kD.

Recombinant Human Apoptosis-Inducing Factor 1 is produced by our E.coli expression system and the target gene encoding Glu121-Asp613 is expressed with a 6His tag at the N-terminus. 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.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.  
**Storage condition :** 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.  
**Amino Acid :** MGSSHHHHHSSGLVPRGSHMEEVPQDKAPSHVFPFLIGGGTAAFAAARSIRARDPGARVLIVSEDPPELPMR  
PPLSKELWFSDDPNVTKTLRFKQWNGKERSIYFQPPSFYVSAQDLPHIENGGVAVLTGKKVQDLVDRDNMVKL  
NDGSQITYEKLIATGGTPRSLSAIDRAGAEVKSRTTLFRKIGDFRSLEKISREVKSITIIGGGFLGSELACALGRKA  
RALGTEVIQLFPEKGNMGKILPEYLSNWTMEKVRREGVKVMPNAIVQSVGVSSGKLLIKLDGRKVVTDHIVAA  
VGLEPNVELAKTGGLSDFGGFRVNAELQARSNIWVAGDAACFYDIKLGRRRVEHHDHVVSGRLAGENM  
TGAAPYWHQSMFWSDLGPDVGYEAGLVDSLLPTVGVFAKATAQDNPKSATEQSGTGIRSESETESEASEITI  
PPSTPAVPQAPVQGEDYGKGVIFYLRDKVVVGVILWNIFNRMPIARKIIKDGEQHEDLNEVAKLFNIHED

### Application Note

Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100 µg/ml. Dissolve the lyophilized protein in ddH<sub>2</sub>O. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.