

APAF1 Protein, Human (P. pastoris, His)

Cat. No.:	HY-P700502
Synonyms:	APAF 1; Apaf-1; APAF_HUMAN; Apaf1; Apoptotic peptidase activating factor 1; Apoptotic protease activating factor 1; Apoptotic protease activating factor; Apoptotic protease-activating factor 1; CED 4; CED4; KIAA0413
Species:	Human
Source:	P. pastoris
Accession:	O14727 (S104-L415)
Gene ID:	317
Molecular Weight:	37.4 kDa

PROPERTIES

AA Sequence	<pre> S G I T S Y V R T V L C E G G V P Q R P V V F V T R K K L V N A I Q Q K L S K L K G E P G W V T I H G M A G C G K S V L A A E A V R D H S L L E G C F P G G V H W V S V G K Q D K S G L L M K L Q N L C T R L D Q D E S F S Q R L P L N I E E A K D R L R I L M L R K H P R S L L I L D D V W D S W V L K A F D S Q C Q I L L T T R D K S V T D S V M G P K Y V V P V E S S L G K E K G L E I L S L F V N M K K A D L P E Q A H S I I K E C K G S P L V V S L I G A L L R D F P N R W E Y Y L K Q L Q N K Q F K R I R K S S S Y D Y E A L D E A M S I S V E M L R E D I K D Y Y T D L S I L Q K D V K V P T K V L C I L W D M E T E E V E D I L </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>APAF1 Protein, as an essential component of the apoptosome, orchestrates the cytochrome c-dependent autocatalytic activation of pro-caspase-9 (Apaf-3), initiating the caspase-3 activation cascade and ultimately leading to apoptosis. The oligomeric form of APAF1 forms a heptameric ring, known as the apoptosome, in the presence of cytochrome c and dATP. Within this complex, APAF1 and pro-caspase-9 interact via their NH₂-terminal CARD domains, leading to the release of mature caspase-9. Concurrently, pro-caspase-3 is recruited into the APAF1-pro-caspase-9 complex through interaction with</p>
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pro-caspase-9, facilitating the activation of caspase-3. Notably, isoform 6 of APAF1 exhibits reduced effectiveness in inducing apoptosis. Additionally, APAF1 interacts with AIP, NAIP/BIRC1, and CIAO2A, contributing to its multifaceted role in the regulation of apoptotic pathways.

Caution: Product has not been fully validated for medical applications. For research use only.

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