cIAP1/HIAP-2 Protein, Human (His)

Cat. No.:	HY-P76824
Synonyms:	Baculoviral IAP repeat-containing protein 2; IAP homolog B; hIAP-2; BIRC2; API1; MIHB; RNF48
Species:	Human
Source:	E. coli
Accession:	Q13490 (E144-L356)
Gene ID:	329
Molecular Weight:	Approximately 26 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 10 mM Tris, 5% Glycerol, 0.5 mM EDTA, 5 mM DTT, pH 7.5. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	The cIAP1/HIAP-2 protein emerges as a multi-functional orchestrator governing diverse cellular processes, encompassing caspases and apoptosis regulation, modulation of inflammatory signaling and immunity, mitogenic kinase signaling, cell proliferation, as well as cell invasion and metastasis. Functioning as an E3 ubiquitin-protein ligase, cIAP1/HIAP-2 intricately regulates NF-kappa-B signaling, acting both as a positive regulator of the canonical pathway and a suppressor of constitutive activation in the non-canonical NF-kappa-B signaling. Targeting a spectrum of proteins for ubiquitination, including RIPK1, RIPK2, RIPK3, RIPK4, CASP3, CASP7, CASP8, TRAF2, DIABLO/SMAC, MAP3K14/NIK, MAP3K5/ASK1, IKBKG/NEMO, IKBKE, and MXD1/MAD1, cIAP1/HIAP-2 also functions as an E3 ubiquitin-protein ligase in the NEDD8 conjugation pathway, impacting effector caspases. As a pivotal regulator of innate immune signaling through pattern recognition receptors (PRRs), it shields cells from the spontaneous formation of the ripoptosome—a multi-protein complex capable of inducing caspase-dependent and caspase-independent cell death—by ubiquitinating RIPK1 and CASP8. Moreover, cIAP1/HIAP-2 can stimulate the transcriptional activity of E2F1 and plays a role in modulating the cell cycle, illustrating its central role in the intricate landscape of cellular processes.

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

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