

**MATERIAL DATA SHEET****cIAP-1, human recombinant****Cat. # E3-280**

Cellular inhibitor of apoptosis protein 1 (cIAP-1, also known as BIRC2, MIHB, and HIAP2) is a member of the inhibitor of apoptosis (IAP) family of proteins that inhibit the proteolytic activity of mature caspases. Structurally, cIAP-1 is comprised of 3 BIR (baculovirus inhibitor of apoptosis) domains, a RING finger domain, and a caspase recruitment domain (CARD). Functionally, cIAP-1 inhibit caspases through the direct interaction of its BIR domain with the active caspase. The ring finger domain of cIAP-1 also functions as an E3 ubiquitin ligase to ubiquitinate specific target proteins. Caspase activity may be restored by mitochondrial proteins, such as SMAC/Diablo or HtrA2/Omi, through interactions with the Reaper-like motif and the BIR domain.

**Product Information**

<b>Quantity:</b>	50 µg
<b>Stock:</b>	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 500 mM NaCl, 20% Glycerol (v/v), 5 mM TCEP
<b>MW:</b>	72 kDa
<b>Purity:</b>	> 85% by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie Blue stain.

**Use & Storage**

<b>Use:</b>	Recombinant Human cIAP-1/HIAP-2 is a RING finger Ubiquitin ligase (E3) that functions downstream of a Ubiquitin-activating (E1) enzyme and a Ubiquitin-conjugating (E2) enzyme to conjugate Ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial cIAP-1 concentration of 0.2-1 µM.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

**Literature**

<b>References:</b>	Gyrd-Hansen M. & Meier P. (2010) <u>Nat. Rev. Cancer</u> <b>10</b> : 561 Bertrand M.J., <i>et al.</i> (2011) <u>PLoS ONE</u> <b>6</b> : E22356 Kulathila R., <i>et al.</i> (2009) <u>Acta Crystallogr. D</u> <b>65</b> : 58 Lopez J., <i>et al.</i> (2011) <u>Mol. Cell</u> <b>42</b> : 569
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