Human Livin/BIRC7, C-His Tag Protein

HA211325

Product name:	Human Livin/BIRC7, C-His Tag
Species reactivity:	Human
Bio-Activity:	Testing in progress.
Protein construction description:	A DNA sequence encoding the human Livin/BIRC7 protein (Q96CA5-1) (Met 1-Ser 298) was expressed with a His tag at the C-terminus.

Background: BIRC7, also known as Livin, is a member of the inhibitor of apoptosis protein (IAP) family. It plays a dual role as an apoptotic regulator, capable of exerting both proapoptotic and anti-apoptotic activities. Livin is crucial for controlling apoptosis, cell proliferation, and cell cycle regulation. Its anti-apoptotic function is primarily mediated through the inhibition of caspases, including CASP3, CASP7, and CASP9, as well as through its E3 ubiquitin-protein ligase activity. Livin promotes cell survival by ubiquitinating and targeting DIABLO/SMAC for degradation, thereby preventing DIABLO/SMAC from disrupting XIAP/BIRC4-caspase interactions. Livin protects cells from apoptosis induced by TNF or chemical agents such as adriamycin, etoposide, and staurosporine. This anti-apoptotic effect is achieved through the activation of MAPK8/JNK1 and possibly MAPK9/JNK2, which depends on TAB1 and MAP3K7/TAK1. In vitro, Livin inhibits CASP3 and the proteolytic activation of pro-CASP9. Structurally, Livin contains a single baculoviral IAP repeat (BIR) domain and a RING domain at the C-terminus. Overexpression of Livin has been observed in various cancers, including lung, colon, and prostate cancers, making it a potential therapeutic target.

Purity:	>90% as determined by SDS-PAGE.
Endotoxin:	Less than 1.0 EU per μg by the LAL method.
Fragment region:	Livin/BIRC7 (1-298)
Source:	E.coli
Accession:	Q96CA5-1
Predicted molecular mass:	35.2 kD
Formulation:	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol.
Reconstitution:	Reconstitute at 250 μg/ml in sterile water.
Storage:	Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20℃ to -80℃ It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles.

Images

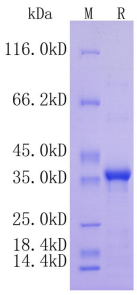

Fig1: Protein on SDS-PAGE under reducing (R) condition.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".