*Killer*TRAIL™ Protein (soluble) (human), (recombinant)

Product Literature References

*▪Anti-PD-L1/TGFβR2 (M7824) fusion protein induces immunogenic modulation of human urothelial carcinoma cell lines, rendering them more susceptible to immune-mediated recognition and lysis: I. Grenga, et al.; Urol. Oncol. **36**, 93.e1 (2018), Abstract;*

*▪Balance between IL-3 and type Iinterferons and their interrelationship with FasL dictates lifespan and effector functions of human basophils: B.R. Hagmann, et al.; Clin. Exp. Allergy **47**, 71 (2017), Abstract;*

*▪Differences and similarities in TRAIL-and tumor necrosis factor-mediated necroptotic signaling in cancer cells: J. Sosna, et al.; Mol. Cell. Biol. **36**, 2626 (2016), Abstract;*

*▪The SMAC mimetic BV6 induces cell death and sensitizes different cell lines to TNF-α and TRAIL-induced apoptosis: M. El-Mesery, et al.; Exp. Biol. Med. **241**, 2015 (2016), Abstract;*

*▪Combinatorial treatment of CD95L and gemcitabine in pancreatic Cancer cells induces apoptotic and RIP1-mediated necroptotic cell death network: S. Pietkiewicz, et al.; Exp. Cell Res. **339**, 1 (2015), **Application(s):** Apoptosis induced in pancreatic cancer cells , Abstract;*

*▪Sensitization of Melanoma Cells for Death Ligand TRAIL Is Based on Cell Cycle Arrest, ROS Production, and Activation of Proapoptotic Bcl-2 Proteins: S.A. Quast, et al.; J. Invest. Dermatol. **135**, 2794 (2015), Abstract;*

*▪c-Rel is a critical mediator of NF-κB-dependent TRAIL resistance of pancreatic cancer cells: C. Geismann, et al.; Cell Death Dis. **5**, e1455 (2014), **Application(s):** Apoptosis induced in human pancreatic ductal adenocarcinoma cells (PANC-1 and Patu8998t), Abstract; Full Text*

*▪COX-2-independent effects of celecoxib sensitize lymphoma B cells to TRAIL-mediated apoptosis: A.S. Gallouet, et al.; Clin. Cancer Res. **20**, 2663 (2014), Abstract;*

*▪Intra- and interdimeric caspase-8 self-cleavage controls strength and timing of CD95-induced apoptosis: S.M. Kallenberger, et al.; Sci. Signal. **7**, ra23 (2014), Abstract;*

*▪Modulation of nuclear factor E2-related factor-2 (Nrf2) activation by the stress response gene immediate early response-3 (IER3) in colonic epithelial cells: a novel mechanism of cellular adaption to inflammatory stress: I. Stachel, et al.; J. Biol. Chem. **289**, 1917 (2014), **Application(s):** Apoptosis induced in human NCM460 colonocytes, Abstract; Full Text*

*▪RAF inhibition overcomes resistance to TRAIL-induced apoptosis in melanoma cells: A. Berger, et al.; J. Invest. Dermatol. **134**, 430 (2014), Abstract;*

*▪TRAF2 inhibits TRAIL- and CD95L-induced apoptosis and necroptosis: I. Karl, et al.; Cell Death Dis. **5**, e1444 (2014), **Application(s):** Cell death induction in primary keratinocytes, HaCaT and HeLa cells, Abstract; Full Text*

*▪Aurora and IKK kinases cooperatively interact to protect multiple myeloma cells from Apo2L/TRAIL: L. Mazzera, et al.; Blood **122**, 2641 (2013), **Application(s):** TRAIL signaling analysis in multiple myeloma cells, Abstract;*

*▪CD40-directed scFv-TRAIL fusion proteins induce CD40-restricted tumor cell death and activate dendritic cells: M. El-Mesery, et al.; Cell Death Dis. **4**, e916 (2013), **Application(s):** Stimulation of IL-8 production in HeLa and HeLa-CD40 transfected cells, Abstract;*

*▪High expression of crystallin αB represents an independent molecular marker for unfavourable ovarian cancer patient outcome and impairs TRAIL- and cisplatin-induced apoptosis in human ovarian cancer cells: J. Volkmann, et al.; Int. J. Cancer **132**, 2820 (2013), **Application(s):** Apoptosis induced in human ovarian cancer cells (OV-MZ-6 and HEY), Abstract; Full Text*

*▪ROS-dependent phosphorylation of Bax by wortmannin sensitizes melanoma cells for TRAIL-induced apoptosis: S.A. Quast, et al.; Cell Death Dis. **10**, e839 (2013), Abstract; Full Text*

*▪General Sensitization of Melanoma Cells for TRAIL-Induced Apoptosis by the Potassium Channel Inhibitor TRAM-34 Depends on Release of SMAC: S.A. Quest, et al.; Plos One **7**, e39290 (2012), Abstract; Full Text*

*▪Role of Apollon in Human Melanoma Resistance to Antitumor Agents That Activate the Intrinsic or the Extrinsic Apoptosis Pathways: E. Tassi, et al.; Clin. Cancer Res. **18**, 3316 (2012), **Application(s):** Death induction of human melanoma cells, Abstract; Full Text*

*▪Efficient melanoma cell killing and reduced melanoma growth in mice by a selective replicating adenovirus armed with tumor necrosis factor-related apoptosis-inducing ligand: L.F. Fecker, et al. ; Hum. Gene Ther. **22**, 405 (2011), Abstract;*

*▪Inhibition of SREBP1 sensitizes cells to death ligands: Y. Eberhard, et al.; Oncotarget **2**, 186 (2011), Abstract; Full Text*

*▪Sensitization of melanoma cells for death ligand-induced apoptosis by an indirubin derivative--Enhancement of both extrinsic and intrinsic apoptosis pathways: A. Berger, et al.; Biochem. Pharmacol. **81**, 71 (2011), Abstract;*

*▪Sensitization of melanoma cells for TRAIL-induced apoptosis by BMS-345541 correlates with altered phosphorylation and activation of Bax: A. Berger, et al.; Biochem. Pharmacol. **81**, 71 (2011), Abstract;*

*▪Under HEMA conditions, self-replication of human erythroblasts is limited by autophagic death: G. Migliaccio, et al. ; Blood Cells Mol. Dis. **47**, 182 (2011), Abstract;*

*▪Exploration of the lysis mechanisms of leukaemic blasts by chimaeric T-cells: D. Laurin, et al.; J. Biomed. Biotechnol. **2010**, 234540 (2010), Abstract; Full Text*

*▪FOXO3A as a key molecule for all-trans retinoic acid-induced granulocytic differentiation and apoptosis in acute promyelocytic leukemia: Y. Sakoe, et al.; Blood **115**, 3787 (2010), **Application(s):** Death induction of NB4 cells, Abstract; Full Text*

*▪Human CD34+ cells engineered to express membrane-bound tumor necrosis factor-related apoptosis-inducing ligand target both tumor cells and tumor vasculature: C. Lavazza, et al.; Blood **115**, 2231 (2010), **Application(s):** Multiple myeloma killing studies in mice, Abstract; Full Text*

*▪Lipopolysaccharide-induced expression of TRAIL promotes dendritic cell differentiation: Y.S. Cho, et al.; Immunology **130**, 504 (2010), Abstract; Full Text*

▪Resistance of cutaneous anaplastic large-cell lymphoma cells to apoptosis by death ligands is enhanced by CD30-mediated overexpression of c-FLIP: F.K. Braun, et al.; J. Invest. Dermatol. ***130****, 826 (2010), Abstract;*

▪Small molecule inhibition of phosphatidylinositol-3,4,5-triphosphate (PIP3) binding to pleckstrin homology domains: B. Miao, et al.; PNAS ***107****, 20126 (2010),* ***Application(s):*** *Death induction of sensitized U87MG cells, Abstract; Full Text*

▪HYD1-induced increase in reactive oxygen species leads to autophagy and necrotic cell death in multiple myeloma cells: R.R. Nair, et al.; Mol. Cancer Ther. ***8****, 2441 (2009),* ***Application(s):*** *Death induction of H929 cells, Abstract; Full Text*

▪IFN-α-Induced Apoptosis in Hepatocellular Carcinoma Involves Promyelocytic Leukemia Protein and TRAIL Independently of p53: K. Herzer, et al.; Cancer Res. ***69****, 855 (2009),* ***Application(s):*** *Death induction of Hep3B, Huh7, Huh6, HepG2 and Chang cells, Abstract; Full Text*

▪PRMT5, a Novel TRAIL Receptor-Binding Protein, Inhibits TRAIL-Induced Apoptosis via Nuclear Factor-κB Activation: H. Tanaka, et al.; Mol. Cancer Res. ***7****, 557 (2009),* ***Application(s):*** *Death induction of HeLa, A549, HCT116 and HT1080 cells, Abstract; Full Text*

▪Caspase-8 Cleaves Histone Deacetylase 7 and Abolishes Its Transcription Repressor Function: F.L. Scott, et al.; J. Biol. Chem. ***283****, 19499 (2008),* ***Application(s):*** *Death induction of HEK293 cells, Abstract; Full Text*

▪Topoisomerase I Requirement for Death Receptor-induced Apoptotic Nuclear Fission: O. Sordet, et al.; J. Biol. Chem. ***283****, 23200 (2008),* ***Application(s):*** *Death induction of HCT116 and Jurkat cells, Abstract; Full Text*

▪Blockade of death receptor-mediated pathways early in the signaling cascade coincides with distinct apoptosis resistance in cutaneous T-cell lymphoma cells: F.K. Braun, et al.; J. Invest. Dermatol. ***127****, 2425 (2007), Abstract;*

▪Resistance of melanoma cells to TRAIL does not result from upregulation of antiapoptotic proteins by NF-kappaB but is related to downregulation of initiator caspases and DR4: B.M. Kurbanov, et al.; Oncogene ***26****, 3364 (2007), Abstract;*

▪Increased death receptor resistance and FLIPshort expression in polycythemia vera erythroid precursor cells: A. Zeuner, et al.; Blood ***107****, 3495 (2006),* ***Application(s):*** *Death induction of human erythroblasts, Abstract; Full Text*

▪Inorganic selenium sensitizes prostate cancer cells to TRAIL-induced apoptosis through superoxide/p53/Bax-mediated activation of mitochondrial pathway: H. Hu, et al.; Mol. Cancer Ther. ***5****, 1873 (2006),* ***Application(s):*** *Death induction and sensitation analysis of LNCaP and DU145 cells, Abstract; Full Text*

▪TRAIL promotes metastasis of human pancreatic ductal adenocarcinoma: A. Trauzold, et al.; Oncogene ***25****, 7434 (2006), Abstract; Full Text*

▪Chronic lymphocytic leukemic cells exhibit apoptotic signaling via TRAIL-R1: M. MacFarlane, et al.; Cell Death Differ. ***12****, 773 (2005),* *Abstract;*

▪Telomerase-Dependent Virotherapy Overcomes Resistance of Hepatocellular Carcinomas against Chemotherapy and Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand by Elimination of Mcl-1: T. Wirth, et al.; Cancer Res. ***65****, 7393 (2005),* ***Application(s):*** *Death induction of sensitized Huh7 and Hep3B cells and Hep3B-derived s.c. tumor xenografts in mice,* *Abstract;* *Full Text*

▪Autocrine Secretion of Fas Ligand Shields Tumor Cells from Fas-Mediated Killing by Cytotoxic Lymphocytes: K. Hallermalm, et al.; Cancer Res. ***64****, 6775 (2004),* ***Application(s):*** *Death induction of Jurkat cells and death induction trials with OCM1 and OCM8 cells,* *Abstract;* *Full Text*

▪HPC1/RNASEL Mediates Apoptosis of Prostate Cancer Cells Treated with 2',5'-Oligoadenylates, Topoisomerase I Inhibitors, and Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand: K. Malathi, et al.; Cancer Res. ***64****, 9144 (2004),* ***Application(s):*** *Death induction of prostate epithelial cells, DU145 and PC3 cells,* *Abstract;* *Full Text*

▪The Human Papillomavirus Type 16 E5 Protein Impairs TRAIL- and FasL-Mediated Apoptosis in HaCaT Cells by Different Mechanisms: K. Kabsch & A. Alonso; J. Virol. ***76****, 12162 (2002),* ***Application(s):*** *Death induction of HaCaT and A31 cells,* *Abstract;* *Full Text*

▪TRAIL (Apo2L) suppresses growth of primary human leukemia and myelodysplasia progenitors: M. Plasilova, et al.; Leukemia ***16****, 67 (2002),* *Abstract;* *Full Text*

▪TRAIL and its receptors in the colonic epithelium: a putative role in the defense of viral infections: J. Sträter, et. al.; Gastroenterology ***122****, 659 (2002),* *Abstract;*

▪The anti-apoptotic protein BAG-3 is overexpressed in pancreatic cancer and induced by heat stress in pancreatic cancer cell lines: Q. Liao, et al.; FEBS Lett. ***503****, 151 (2001),* *Abstract;*

▪The cytokines tumor necrosis factor-α (TNF-α) and TNF-related apoptosis-inducing ligand differentially modulate proliferation and apoptotic pathways in human keratinocytes expressing the human papilloma: J.R. Basile, et al.; J. Biol. Chem. ***276****, 22522 (2001),* *Abstract;* *Full Text*