Datasheet for ABIN1344417

TRAIL Protein (AA 95-281, Extracellular Domain, Soluble)

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Overview

Quantity:	10 µg
Target:	TRAIL (TNFSF10)
Protein Characteristics:	AA 95-281, Extracellular Domain, Soluble
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	SDS-PAGE (SDS)

Product Details

Specificity:	Binds to human TRAIL receptors 1-4 (TRAIL-R1 to TRAIL-R4), izTRAIL does not interact with the apoptosis-inducing mouse TRAIL receptor (TRAIL-R).
Cross-Reactivity:	Human
Characteristics:	The extracellular domain of human TRAIL (aa 95-281) is fused at the N-terminus to an isoleucine zipper motif.
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.01EU/µg purified protein (LAL test, Lonza).

Target Details

Target:	TRAIL (TNFSF10)

Target Details

Abstract:	TNFSF10 Products
Background:	IzTRAIL is a newly available, highly active recombinant form of soluble human TRAIL. Due to a trimerizing N-terminal isoleucine zipper (iz) motif the intrinsic trimerization of TRAIL, required for apoptosis-inducing activity of TRAIL, is enhanced when compared to non-tagged soluble human TRAIL (shTRAIL). Therefore, izTRAIL is a potent inducer of apoptosis in many human cancer cells, but not normal human hepatocytes. In addition, the half-life of izTRAIL is about eight-fold higher than the half-life of shTRAIL. These properties render izTRAIL highly suitable for both, in vitro and in vivo use, particularly for studies in which investigators plan to transfer their in vitro results into an in vivo system with human cancer cells in xenotransplant settings examining susceptibility to TRAIL-induced apoptosis.
Molecular Weight:	~82kDa as stable trimers (determined by size exclusion chromatography) ~28kDa as monomer (determined by SDS-PAGE)
UniProt:	P50591
Pathways:	Apoptosis, Positive Regulation of Endopeptidase Activity

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Induces apoptosis in vitro in different human cancer cell lines with an EC50 of 5-200ng/ml, depending on the individual cell line used. Recombinant izTRAIL does not kill 4-day cultures of primary human hepatocytes (PHH) at concentrations of at least up to 1µg/ml (Ganten 2006). Good bioavailability in vivo, shows no toxic effects in mice at doses of at least up to 500µg per day (Wissink 2006).
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Concentration:	Lot specific
Buffer:	Lyophilized. Contains 20 mM TRIS-Cl, 0.5M arginine-HCl, 100 mM NaCl, 0.02 % Tween 20.
Storage:	4 °C,-20 °C
Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C

Handling

	Stable for at least 6 months after receipt when stored at -20°C.
Expiry Date:	6 months

Publications

Product cited in:

Cao, Ye, Zhang, Zhu, Wang, Yao: "A multiplex model of combining gene-based, protein-based, and metabolite-based with positive and negative markers in urine for the early diagnosis of prostate cancer." in: **The Prostate**, Vol. 71, Issue 7, pp. 700-10, (2011) (PubMed).

Schostak, Schwall, Poznanovi?, Groebe, Müller, Messinger, Miller, Krause, Pelzer, Horninger, Klocker, Hennenlotter, Feyerabend, Stenzl, Schrattenholz: "Annexin A3 in urine: a highly specific noninvasive marker for prostate cancer early detection." in: **The Journal of urology**, Vol. 181, Issue 1, pp. 343-53, (2008) (PubMed).

Wozny, Schroer, Schwall, Poznanovi?, Stegmann, Dietz, Rogatsch, Schaefer, Huebl, Klocker, Schrattenholz, Cahill: "Differential radioactive quantification of protein abundance ratios between benign and malignant prostate tissues: cancer association of annexin A3." in: **Proteomics**, Vol. 7, Issue 2, pp. 313-22, (2007) (PubMed).

