Recombinant Human Teratocarcinoma-Derived Growth Factor 1

Cat. No. TDGF1-495H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human teratocarcinoma-derived growth factor 1 encoding the human teratocarcinoma-derived growth factor 1 protein (comprising the signal peptide sequence and the first 139 amino acids of the mature protein, encompassing the EGF-like domain) was expressed in modified*human 293 cells*.
Species	Human
Source	HEK293
Description	Teratocarcinoma-derived growth factor 1 is the founding member of the EGF-CFC gene family, which is conserved among vertebrates. Proteins within this family contain a signal sequence, a characteristic EGF-like domain, a cysteine-rich region termed the cryptic (CFC) motif, and a hydrophobic C? terminus. It has been reported that Cripto-1 is O-fucosylated on Thr-88 and that this modification is required for the physical interaction with Nodal as well as for signalling activity. We have confirmed that teratocarcinoma-derived growth factor 1 is O-fucosylated at this site.
Amino Acid Sequence	LGHQEFARPSRGYLAFRDDSIWPQEEPAIRPRSSQRVPPMGIQHSKELNRTCCLNG GTC MLGSFCACPPSFYGRNCEHDVRKENCGSVPHDTWLPKKCSLCKCWHGQLR CFPQAFL PGCDGLVMDEHLVASRTPELPPS.
Molecular Mass	Under reducing conditions teratocarcinoma-derived growth factor 1 migrates as a broad band between 20 and 30 kDa on SDS-PAGE due to post-translational

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	modifications, in particular glycosylation. This compares with unmodified Cripto-1 polypeptide that has a predicted monomeric molecular mass of 15.6 kDa.
pI	Teratocarcinoma-derived growth factor 1 has a predicted pI of 8.04.
% Carbohydrate	Purified teratocarcinoma-derived growth factor 1 consists of 20-50% carbohydrate by weight.
Glycosylation	Teratocarcinoma-derived growth factor 1 contains N- and O-linked oligosaccharides with confirmed O-fucosylation at Thr-88.
Purity	>95%, as determined by SDS-PAGE, visualised by Coomassie Brilliant Blue.
Formulation	When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.
Storage	Lyophilised products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, with longer-term storage in aliquots at -18 to -20°C. Repeated freeze thawing is not recommended.
Activity	Teratocarcinoma-derived growth factor 1 has been shown to stimulate MAPK phosphorylation in HUVEC cells. 200ng/ml is sufficient to stimulate phosphorylation.

GENE INFORMATION

Gene Name	TDGF1 teratocarcinoma-derived growth factor 1 [Homo sapiens]
Synonyms	TDGF1; teratocarcinoma-derived growth factor 1; CR; CRGF; CRIPTO; Cripto-1;

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	Epidermal growth factor-like cripto protein CR1; Cripto-1 growth factor
Gene ID	6997
mRNA Refseq	NM_003212
Protein Refseq	NP_003203
UniProt ID	P13385
Chromosome Location	3p21.31
MIM	187395
Function	growth factor activity

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