

# Recombinant Human Transforming Growth Factor, Beta-induced, 68kDa

**Cat. No.** TGFBI-149H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human BIGH3 protein was expressed in E. coli and purified by using conventional chromatography techniques(182 aa, 19.9 kDa).                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | BIGH3, also known as TGFBI and Beta ig-h3, is an extracellular matrix protein induced by transforming growth factor(TGF)-beta 1. BIGH3 protein is involved in cell growth, cell differentiation, wound healing and cell adhesion. In addition, some missense mutations of BIGH3 were identified in families affected with human autosomal dominant corneal dystrophies. BIGH3 gene encodes for a 683 amino-acid protein containing an RGD motif and four internal repeated domains which have highly conserved sequences founded in several species (Fasciclin domain). |
| <b>Formulation</b>      | Liquid. In 20 mM Tris-HCl ( pH 8.0) containing 1 mM EDTA, 0.1 mM PMSF, 20% Glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Molecular Weight</b> | 19.9 kDa (182 aa). (Real molecular size on SDS-PAGE will be shift up).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Purity</b>           | > 95% by SDS – PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Concentration</b>    | 0.5 mg/ml (determined by Bradford assay).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                            |                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin Level</b>     | < 1.0 EU per 1 µg of protein (determined by LAL method).                                                                                                                                                          |
| <b>Amino acid Sequence</b> | MGTVMMDVLKG DNRFSMLVAA IQSAGLTETL NREGVYTVFA PTNEAFRALP<br>PRERSRLLDG AKELANILKY HIGDEILVSG GIGALVRLKS LQGDKLEVSL<br>KNNVSVNKE PVAEPDIMAT NGVVHVITNV LQPPANRPQE RGDELADSAL<br>EIFKQASAFS RASQRSVRLA PVYQKLLERM KH |
| <b>Storage</b>             | Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.                                                             |

## GENE INFORMATION

|                            |                                                                                                                                                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | TGFB1 transforming growth factor, beta-induced, 68kDa [ Homo sapiens ]                                                                                                                                  |
| <b>Synonyms</b>            | TGFB1; BIGH3; CDB1; CDG2; CDGG1; CSD; CSD1; CSD2; CSD3; EBMD; LCD1; kerato-epithelin; RGD-containing collagen-associated protein; RGD-CAP; Beta ig-h3; transforming growth factor, beta-induced, 68kDa. |
| <b>Gene ID</b>             | 7045                                                                                                                                                                                                    |
| <b>mRNA Refseq</b>         | NM_000358                                                                                                                                                                                               |
| <b>Protein Refseq</b>      | NP_000349                                                                                                                                                                                               |
| <b>MIM</b>                 | 601692                                                                                                                                                                                                  |
| <b>UniProt ID</b>          | Q15582                                                                                                                                                                                                  |
| <b>Chromosome Location</b> | 5q31                                                                                                                                                                                                    |

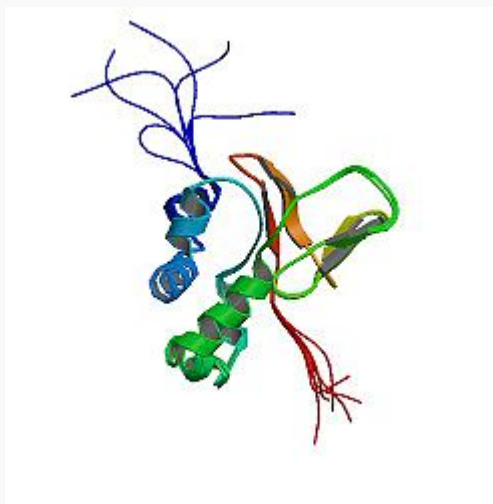
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**Function** integrin binding; protein binding.

**PDBrendering based  
on 1x3b. Available  
structures: 1x3b.**



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