

# Recombinant Human TF

**Cat. No.** TF-31155TH    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
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| <b>Product Overview</b>    | Recombinant full length Human Transferrin expressed in modified human 293 cells, 70-80kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>         | This gene encodes a glycoprotein with an approximate molecular weight of 76.5 kDa. It is thought to have been created as a result of an ancient gene duplication event that led to generation of homologous C and N-terminal domains each of which binds one ion of ferric iron. The function of this protein is to transport iron from the intestine, reticuloendothelial system, and liver parenchymal cells to all proliferating cells in the body. This protein may also have a physiologic role as granulocyte/pollen-binding protein (GPBP) involved in the removal of certain organic matter and allergens from serum. |
| <b>Tissue specificity</b>  | Expressed by the liver and secreted in plasma.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Biological activity</b> | The activity of TF-31155TH was measured by its ability to support the growth of HepG2 cells under conditions of reduced serum. Typically 0.1 to 1 µg enhances cell proliferation.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Form</b>                | Lyophilised: It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity</b>              | >95% by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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| <b>Storage buffer</b>           | Preservative: None<br>Constituents: 10% Trehalose, 1% Human serum albumin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Storage</b>                  | Shipped at 4°C. After reconstitution store at -20oC. Avoid freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Sequences of amino acids</b> | <p>Theoretical sequence: VPDKTVRWCAVSEHEATKCQSFRDHMKSVIPSDGPSVA CV<br/> KKASYLDCIRAIANEADAVTLDAGLVYDAYLAPNN LKPVVAEFYGSKEDPQTFYYA<br/> VAVVKKDSGFQMNQLRG KKSCHTGLGRSAGWNIPIGLLYCDLPEPRKPLEKAVAN<br/> FFSGSCAPCADGTDGDFPQLCQLCPGCGCSTLNQYFGYSG AFKCLKNGAGDVAFAVKH<br/> STIFENLANKADRDQYELLCL DNTRKPVDEYKDCHLAQVPSHTTVVARSMGGKEDLI<br/> WELLN QAQEHFGKDKSKEFQLFSSPHGKDLLFKDSAHAHGLKVP PRMDAKMYLGY<br/> EYVTAIRNLREGTCQEAPTDECKPVKW CALSHHERLKCDEWSVNSVGKIECVSAET<br/> TEDCIAKIM NGEADAMSLDGGFVYIAGKCGLPVLAENYNKSDNCED TPEAGYFAV<br/> AVVKKSASDLTWDNLKGKKSCHTAVGRTA GWNIPMGLLYNKINHCRFDEFFSEGC<br/> APGSKKDSSLCK LCMGSGNLNCEPNNKEGYGYTGAFRCLVEKGDVAFVKHQ TV<br/> PQNTGGKNPDPWAKNLNEKDYELLCLDGTRKPVVEY ANCHLARAPNHAVVTRKDK<br/> EACVHKILRQQQHLFGSNV TDCSGNFCLFRSETKDLLFRDDTVCLAKLHDRNTYEK<br/> Y LGEEYVKAVGNLRKCSTSSLLEACTFRRP</p> |
| <b>Sequence Similarities</b>    | Belongs to the transferrin family.Contains 2 transferrin-like domains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Full Length</b>              | Full L.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>GENE INFORMATION</b>         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Gene Name</b>                | TF transferrin [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Official Symbol</b>          | TF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Synonyms</b>                 | TF; transferrin; serotransferrin; PRO1557; PRO2086;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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| <b>Gene ID</b>             | 7018                                                                                                                                                                                                                                                                          |
| <b>mRNA Refseq</b>         | NM_001063                                                                                                                                                                                                                                                                     |
| <b>Protein Refseq</b>      | NP_001054                                                                                                                                                                                                                                                                     |
| <b>MIM</b>                 | 190000                                                                                                                                                                                                                                                                        |
| <b>Uniprot ID</b>          | P02787                                                                                                                                                                                                                                                                        |
| <b>Chromosome Location</b> | 3q21                                                                                                                                                                                                                                                                          |
| <b>Pathway</b>             | EPHB forward signaling, organism-specific biosystem; HIF-1-alpha transcription factor network, organism-specific biosystem; Hemostasis, organism-specific biosystem; Iron uptake and transport, organism-specific biosystem; Mineral absorption, organism-specific biosystem; |
| <b>Function</b>            | ferric iron binding; metal ion binding; protein binding; ubiquitin protein ligase binding;                                                                                                                                                                                    |

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