

## Recombinant Human TCN2 Protein (His Tag)

**Catalog Number:** PKSH031522

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

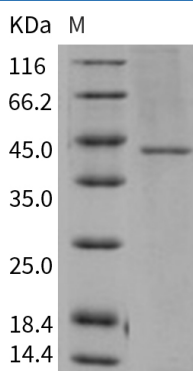
### Description

|                      |  |
|----------------------|--|
| <b>Species</b>       | Human  |
| <b>Source</b>        | HEK293 Cells-derived Human TCN2 protein Met 1-Trp 427, with an C-terminal His  |
| <b>Calculated MW</b> | 46.7 kDa   |
| <b>Observed MW</b>   | 43 kDa   |
| <b>Accession</b>     | NP_000346.2  |
| <b>Bio-activity</b>  | Immobilized human TCN2-His at 10µg/mL (100µL/well) can bind biotinylated mouse CD320-His. The EC <sub>50</sub> of biotinylated mouse CD320-His is 18-42 ng/mL. |

### Properties

|                       |  |
|-----------------------|--|
| <b>Purity</b>         | > 90 % as determined by reducing SDS-PAGE.   |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.  |
| <b>Formulation</b>    | Lyophilized from sterile PBS, pH 7.4<br>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual.              |
| <b>Reconstitution</b> | Please refer to the printed manual for detailed information.   |

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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Transcobalamin II, also known as TCN2 and TC II, is a plasma protein that binds cobalamin (Cbl; vitamin B12) as it is absorbed in the terminal ileum and distributes to tissues. The circulating transcobalamin II-cobalamin complex binds to receptors on the plasma membrane of tissue cells and is then internalized by receptor-mediated endocytosis.

Transcobalamin II is a non-glycosylated secretory protein of molecular mass 43 kDa. Its plasma membrane receptor (TC II-R) is a heavily glycosylated protein with a monomeric molecular mass of 62 kDa. Human TCN2 gene is composed of nine exons and eight introns spanning approximately 20 kb with multiple potential transcription start sites. A number of genetic abnormalities are characterized either by a failure to express TCN2 or by synthesis of an abnormal protein. The TCN2 deficiency results in cellular cobalamin deficiency, an early onset of megaloblastic anaemia, and neurological abnormalities.