

## HumanKine® Transferrin (Recombinant Human)



Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

### Product Description

Transferrin is an 80kDa, monomeric glycoprotein that is responsible for binding ferric iron and transporting it throughout the body. It is primarily produced by hepatocytes and is a critical component of iron homeostasis as it delivers free iron to tissue sites where it is absorbed and utilized by the body. Once it reaches a site of absorption, iron-loaded transferrin binds to its corresponding transferrin receptor and taken up by the cell through endocytosis, after which the iron is disassociated, and free transferrin is released back into the bloodstream at a turnover rate of around 10 times per day. In addition to iron homeostasis, transferrin also plays an important role in the innate immune system. Downregulation of transferrin receptor expression has been linked to the reduced ability of intracellular pathogens to access a cell's iron supply. Measurement of transferrin levels in the blood can also serve as a clinical marker for possible iron deficiency (PMID: 30422523, 22033148).

#### Alternative Names

HEL-S-71p, PRO1557, PRO2086, TFQL1

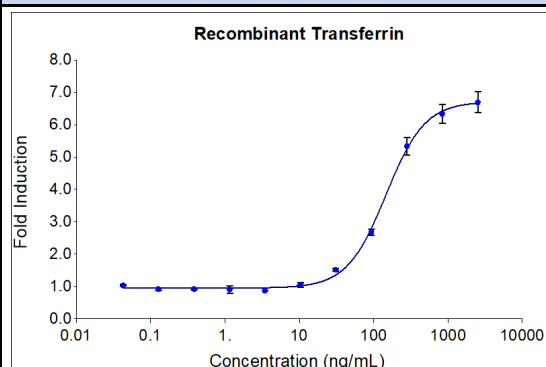
#### Source

Human Embryonic Kidney cells (HEK293). HEK293-derived Transferrin protein

### Specifications

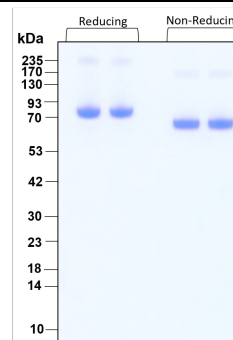
Test	Method	Specification
Activity	Dose-dependent stimulation of the proliferation of the OKT4 mouse hybridoma cell line	65-330 ng/mL
Molecular Mass	SDS-PAGE	80 kDa reduced, 70 kDa non-reduced, monomer, glycosylated
Purity	SDS-PAGE	>95%
Endotoxin	LAL	<1 EU/μg

### Activity Data



Recombinant human Transferrin (Cat no: HZ-1317) stimulates dose-dependent proliferation of the OKT4 mouse hybridoma cell line. Cell number was quantitatively assessed by Prestoblu® Cell Viability Reagent. OKT4 cells were treated with increasing concentrations of recombinant Transferrin for 72 hours. The EC<sub>50</sub> was determined using a 4-parameter non-linear

### SDS-PAGE



Preparation	
Shipping Temperature	ambient temperature
Formulation	1x PBS
Reconstitution	Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein to 0.2 mg/mL in sterile 1x PBS pH 7.4 containing 0.1% endotoxin-free recombinant human serum albumin (HSA). Gently swirl or tap vial to mix.

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
Avoid repeated freeze-thaw cycles.			

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**Proteintech Group, Inc.**  
5500 Pearl Street, Suite 400 Rosemont, IL 60612  
t: 1-888-478-4522; f: 1-312-455-8408  
Email: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)