

## Transferrin Protein, Rat (HEK293, His)

<b>Cat. No.:</b>	HY-P73454
<b>Synonyms:</b>	Serotransferrin; Transferrin; Beta-1 metal-binding globulin; Siderophilin; TF; TRF
<b>Species:</b>	Rat
<b>Source:</b>	HEK293
<b>Accession:</b>	P12346 (V20-S698)
<b>Gene ID:</b>	24825
<b>Molecular Weight:</b>	Approximately 89 kDa

### PROPERTIES

#### AA Sequence

V P D K T V K W C A	V S E H E N T K C I	S F R D H M K T V L	P A D G P R L A C V
K K T S Y Q D C I K	A I S G G E A D A I	T L D G G W V Y D A	G L T P N N L K P V
A A E F Y G S L E H	P Q T H Y L A V A V	V K K G T D F Q L N	Q L Q G K K S C H T
G L G R S A G W I I	P I G L L F C N L P	E P R K P L E K A V	A S F F S G S C V P
C A D P V A F P Q L	C Q L C P G C G C S	P T Q P F F G Y V G	A F K C L R D G G G
D V A F V K H T T I	F E V L P Q K A D R	D Q Y E L L C L D N	T R K P V D Q Y E D
C Y L A R I P S H A	V V A R N G D G K E	D L I W E I L K V A	Q E H F G K G K S K
D F Q L F G S P L G	K D L L F K D S A F	G L L R V P P R M D	Y R L Y L G H S Y V
T A I R N Q R E G V	C P E G S I D S A P	V K W C A L S H Q E	R A K C D E W S V S
S N G Q I E C E S A	E S T E D C I D K I	V N G E A D A M S L	D G G H A Y I A G Q
C G L V P V M A E N	Y D I S S C T N P Q	S D V F P K G Y Y A	V A V V K A S D S S
I N W N N L K G K K	S C H T G V D R T A	G W N I P M G L L F	S R I N H C K F D E
F F S Q G C A P G Y	K K N S T L C D L C	I G P A K C A P N N	R E G Y N G Y T G A
F Q C L V E K G D V	A F V K H Q T V L E	N T N G K N T A A W	A K D L K Q E D F Q
L L C P D G T K K P	V T E F A T C H L A	Q A P N H V V V S R	K E K A A R V S T V
L T A Q K D L F W K	G D K D C T G N F C	L F R S S T K D L L	F R D D T K C L T K
L P E G T T Y E E Y	L G A E Y L Q A V G	N I R K C S T S R L	L E A C T F H K S

**Biological Activity** Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED<sub>50</sub> for this effect is typically 143.5 ng/mL, corresponding to a specific activity is 6.969×10<sup>3</sup> units/mg.

**Appearance** Lyophilized powder

**Formulation** Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.2.

**Endotoxin Level** <1 EU/μg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

**Storage & Stability** Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

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recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping**

Room temperature in continental US; may vary elsewhere.

**DESCRIPTION**

**Background**

Transferrin, a crucial iron-binding transport protein, demonstrates the ability to bind two Fe(3+) ions in conjunction with an anion, typically bicarbonate. Its primary function involves facilitating the transport of iron from sites of absorption and heme degradation to those designated for storage and utilization within the body. Beyond its fundamental role in iron homeostasis, serum transferrin may also contribute to the stimulation of cell proliferation. Structured as a monomer, transferrin's versatile properties underscore its significance in maintaining the delicate balance of iron distribution and participating in cellular processes vital for overall physiological function.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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