**Proteins** 

## **Product** Data Sheet

# Transferrin Protein, Pig (HEK293, His)

Cat. No.: HY-P74494

Synonyms: Serotransferrin; Transferrin; Beta-1 metal-binding globulin; Siderophilin; TF; TRF

Species: Pig

Source: HEK293

Accession: B3CL06 (Q22-T715)

Gene ID: 396996

Molecular Weight: Approximately 80 kDa

### **PROPERTIES**

AA Sequence				
·	QKTVRWCTIS	NQEANKCSSF	RENMSKAVKN	GPLVSCVKKS
	SYLDCIKAIR	DKEADAVTLD	AGLVFEAGLA	PYNLKPVVAE
	FYGQKDNPQT	HYYAVAVVKK	GSNFQWNQLQ	GKRSCHTGLG
	RSAGWIIPMG	LLYDQLPEPR	KPIEKAVASF	FSSSCVPCAD
	PVNFPKLCQQ	C A G K G A E K C A	CSNHEPYFGY	AGAFNCLKED
	AGDVAFVKHS	TVLENLPDKA	DRDQYELLCR	DNTRRPVDDY
	ENCYLAQVPS	HAVVARSVDG	QEDSIWELLN	QAQEHFGRDK
	SPDFQLFSSS	HGKDLLFKDS	ANGFLRIPSK	MDSSLYLGYQ
	YVTALRNLRE	EISPDSSKNE	CKKVRWCAIG	HEETQKCDAW
	SINSGGKIEC	VSAENTEDCI	AKIVKGEADA	MSLDGGYIYI
	AGKCGLVPVL	AENYKTEGEN	CVNTPEKGYL	AVAVVKKSSG
	PDLNWNNLKG	KKSCHTAVDR	TAGWNIPMGL	LYNKINSCKF
	DQFFGEGCAP	GSQRNSSLCA	LCIGSERAPG	RECLANNHER
	YYGYTGAFRC	LVEKGDVAFV	$K\;D\;Q\;V\;V\;Q\;Q\;N\;T\;D$	GKNKDDWAKD
	LKQMDFELLC	QNGAREPVDN	AENCHLARAP	NHAVVARDDK
	VTCVAEELLK	QQAQFGRHVT	DCSSSFCMFK	SNTKDLLFRD
	DTQCLARVGK	TTYESYLGAD	YITAVANLRK	CSTSKLLEAC
	TFHSAKNPRV	ETTT		
Biological Activity	Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED $_{50}$ for this effect is 22.35 ng/mL, corresponding to a specific activity is $4.47 \times 10^4$ units/mg.			
Appearance	Lyophilized powder			
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.			
Endotoxin Level	<1 EU/μg, determined by LAL method.			
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/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).			

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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 recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

#### **DESCRIPTION**

#### Background

Transferrins, as iron-binding transport proteins, exhibit the capability to bind two Fe(3+) ions, often in conjunction with the binding of an anion, typically bicarbonate. Functionally, transferrin plays a crucial role in transporting iron from sites of absorption and heme degradation to locations dedicated to storage and utilization within the body. Beyond its primary involvement in iron homeostasis, serum transferrin may play an additional role in stimulating cell proliferation. Structured as a monomer, transferrin's versatility underscores its significance in orchestrating the intricate processes of iron transport and cellular regulation, contributing to essential physiological functions within the organism.

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

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