



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

PRODUCT INFORMATION



Transferrin (mouse, recombinant)

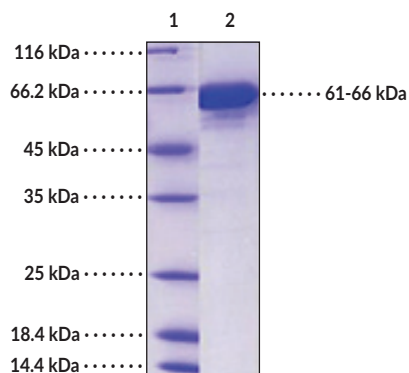
Item No. 38067

Overview and Properties

Synonyms: β -1 Metal-binding Globulin, Serotransferrin, Siderophilin
Source: Recombinant mouse C-terminal His-tagged transferrin expressed in HEK293 cells
Amino Acids: 20-697
Uniprot No.: Q92111
Molecular Weight: 76.3 kDa
Storage: -80°C (as supplied)
Stability: ≥ 1 year
Purity: $\geq 95\%$ estimated by SDS-PAGE
Supplied in: Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing: < 1.0 EU/ μ g, determined by the LAL endotoxin assay

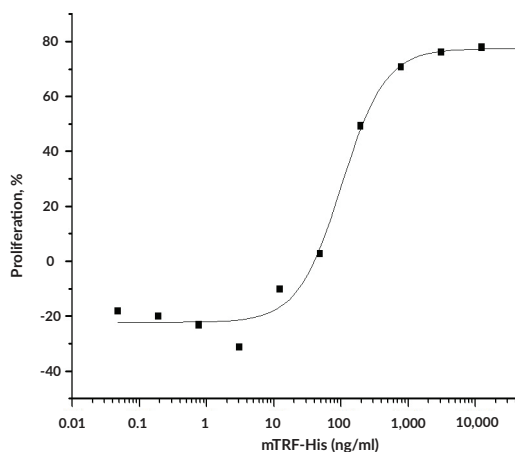
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: Transferrin

SDS-PAGE Analysis of Transferrin. This protein has a calculated molecular weight of 76.3 kDa. It has an apparent molecular weight of approximately 61-66 kDa by SDS-PAGE under reducing conditions due to glycosylation.



Transferrin measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED_{50} value for this effect is typically 0.05-0.2 μ g/ml.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/13/2023

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Transferrin is a glycoprotein that binds and transports ferric iron.^{1,2} It is a bilobal protein composed of N- and C-terminal lobes, each housing a ferric iron binding site, connected by a seven-amino acid bridge.¹ Transferrin is predominately synthesized in hepatocytes, but is also expressed in Sertoli, ependymal, oligodendroglial, and metastatic melanoma cell lines, and is secreted into the circulation.^{1,2} Iron-containing transferrin binds to the transferrin receptor (TFR1; Item No. 32031) on the surface of iron-requiring cells to form the transferrin/TFR complex which undergoes clathrin-dependent endocytosis to facilitate intracellular iron release. The transferrin/TFR complex is then returned to the cell surface and apo-transferrin is released back into the circulation *via* dissociation or displacement by an iron-containing transferrin.¹ Immunodepletion of transferrin inhibits serum-induced ferroptosis of *Bax* and *Bak* double knockout mouse embryonic fibroblasts (MEFs), indicating that transferrin is a regulator of ferroptosis.³ Exogenous administration of apo-transferrin to three-day-old rats increases expression of myelin constituents and enhances myelinogenesis in myelin-deficient rats.⁴ It also normalizes labile plasma iron concentrations and red blood cell survival, increases hemoglobin production, and decreases reticulocytosis and splenomegaly in the *Hbb^{th1/th1}* mouse model of β -thalassemia.⁵ Cayman's Transferrin (mouse, recombinant) protein can be used for cell-based assays. This protein consists of 689 amino acids, has a calculated molecular weight of 76.3 kDa, and a predicted N-terminus of Val20 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 61-66 kDa due to glycosylation.

References

1. Luck, A.N. and Mason, A.B. Transferrin-mediated cellular iron delivery. *Curr. Top. Membr.* **69**, 3-35 (2012).
2. Gomme, P.T. and McCann, K.B. Transferrin: Structure, function and potential therapeutic actions. *Drug Discov. Today* **10(4)**, 267-273 (2005).
3. Gao, M., Monian, P., Quadri, N., *et al.* Glutaminolysis and transferrin regulate ferroptosis. *Mol. Cell.* **59(2)**, 298-308 (2015).
4. Carden, T.R., Correale, J., Pasquini, J.M., *et al.* Transferrin enhances microglial phagocytic capacity. *Mol. Neurobiol.* **56(9)**, 6324-6340 (2019).
5. Li, H., Rybicki, A.C., Suzuka, S.M., *et al.* Transferrin therapy ameliorates disease in β -thalassemic mice. *Nat. Med.* **16(2)**, 177-182 (2010).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM