abcam

Product datasheet

Recombinant human Transferrin protein ab83560

4 Images

Description

Product name	Recombinant human Transferrin protein
Biological activity	The activity of ab83560 was measured by its ability to support the growth of HepG2 cells under conditions of reduced serum. Typically 0.1 to 1 µg enhances cell proliferation.
Purity	> 95 % SDS-PAGE.
Expression system	HEK 293 cells
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	Theoretical sequence: VPDKTVRWCAVSEHEATKCQSFRDHMKSVIPSDGPSVA CVKKASY L DCIRAIAANEADAVTLDAGLVYDAYLAPNNLKPVVAEFYGS KED PQTF YYAVAVVKKDSGFQMNQLRGKKSCHTGLGRSAGWNIPIG LL YCDLPEP RKPLEKAVANFFSGSCAPCADGTDFPQLCQLCPGCGCS TLNQYFGYSG AFKCLKNGAGDVAFVKHSTIFENLANKADRDQYEL LCLDNTRKPVDEY KDCHLAQVPSHTVVARSMGGKEDLIWELLNQA QEHFGKDKSKEFQLFS SPHGKDLLFKDSAHGFLKVPPRMDAKMYL GYEYVTAIRNLREGTCQEA PTDECKPVKWCALSHHERLKCDEWSV NSVGKIECVSAETTEDCIAKIM NGEADAMSLDGGFVYIAGKCGLV PVLAENYNKSDNCEDTPEAGYFAVA VVKKSASDLTWDNLKGKKSC HTAVGRTAGWNIPMGLLYNKINHCRFDE FFSEGCAPGSKKDSSLC KLCMGSGLNLCEPNNKEGYYGYTGAFRCLVE KGDVAFVKHQTVPQ

NTGGKNPDPWAKNLNEKDYELLCLDGTRKPVEEY
ANCHLARAPNH
AVVTRKDKEACVHKILRQQQHLFGSNVTDCSGNFCLF
RSETKDLL
FRDDTVCLAKLHDRNTYEKYLGEEYVKAVGNLRKCSTSSL
LEACT FRRP

Specifications

Our **Abpromise guarantee** covers the use of **ab83560** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE
Form	Lyophilized

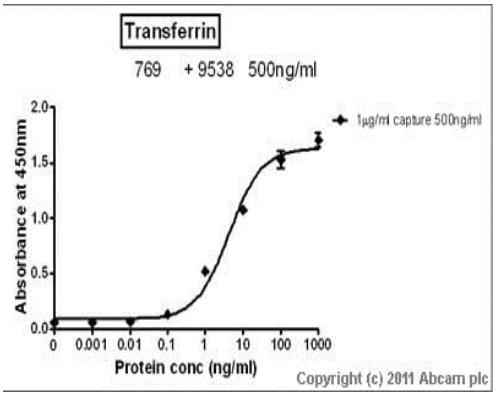
Preparation and Storage

Stability and Storage	Shipped at 4°C. After reconstitution store at -20ºC. Avoid freeze / thaw cycles. Constituents: 10% Trehalose, 1% Human serum albumin This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial.

General Info

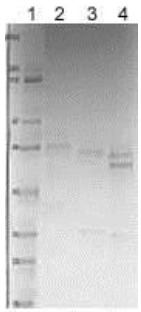
Function	Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation.
Tissue specificity	Expressed by the liver and secreted in plasma.
Involvement in disease	Defects in TF are the cause of atransferrinemia (ATRAF) [MIM:209300]. Atransferrinemia is rare autosomal recessive disorder characterized by iron overload and hypochromic anemia.
Sequence similarities	Belongs to the transferrin family. Contains 2 transferrin-like domains.
Cellular localization	Secreted.

Images



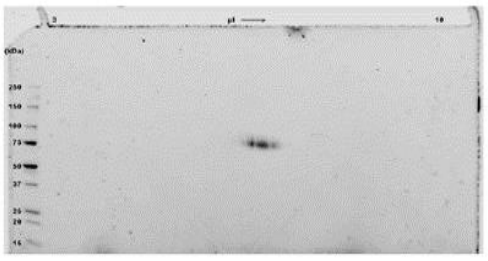
Sandwich ELISA - Recombinant human Transferrin protein (ab83560)

Standard curve for Transferrin (Analyte: ab83560); dilution range 1pg/ml to 1µg/ml using Capture Antibody Mouse monoclonal [HTF-14] to Transferrin (**ab769**) at 1µg/ml and Detector Antibody Rabbit polyclonal to Transferrin (**ab9538**) at 0.5µg/ml.



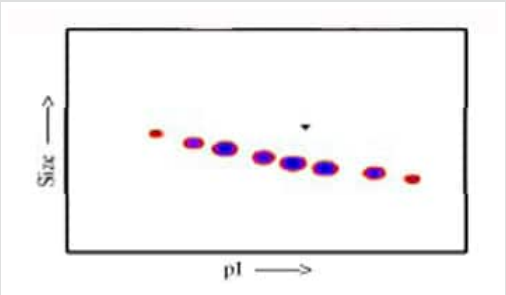
SDS-PAGE - Recombinant human Transferrin protein (ab83560)

Lane 1 – MW markers; Lane 2 – ab83560; Lane 3 – ab83560 treated with PNGase F to remove potential N-linked glycans; Lane 4 – ab83560 treated with a glycosidase cocktail to remove potential N- and Olinked glycans. Approximately 5 µg of protein was loaded per lane; Gel was stained using Coomassie.
Drop in MW after treatment with PNGase F indicates presence of N-linked glycans. A further drop in MW after treatment with the glycosidase cocktail indicates the presence of O-linked glycans. Additional bands in lane 3 and lane 4 are glycosidase enzymes.



SDS-PAGE - Recombinant human Transferrin protein (ab83560)

A sample of ab83560 without carrier protein was reduced and alkylated and focused on a 3-10 IPG strip then run on a 4-20% Tris HCl 2D gel. Approximately 40 µg of protein was load; Gel was stained using Deep Purple™. Spot train indicates presence of multiple isoforms of Transferrin. Spots within the spot train were cut from the gel and identified as Transferrin by protein mass fingerprinting.



Functional Studies - Recombinant human Transferrin protein (ab83560)

Post-translational modifications result in protein heterogeneity. The densitometry scan demonstrates that ab83560 exists in multiple isoforms, which differ according to their level of posttranslational modification. Expression of these isoforms is highly significant for cell biology, as they more closely resemble the native human proteins. The triangle indicates theoretical pI and MW of the protein.

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