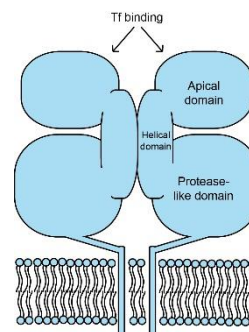


## Transferrin Receptor (TfR)

**Catalogue no.:** Q52  
**Clone name:** 3B2  
**Product:** VHH directed against Transferrin Receptor / TfR / CD71

**Target:** The transferrin receptor (TfR, CD71, UniProtKB [P02786](#)) is a type 2 single membrane spanning receptor (95kDa) that plays an important role in erythrocyte development and in the nerve system.<sup>1</sup> TfR functions as a homodimer and regulates iron homeostasis via binding and cellular uptake of iron-loaded transferrin (Tf) via receptor-mediated endocytosis.<sup>2</sup> The lower pH in endosomes releases the iron from the complex, allowing translocation to the cytoplasm. Upon recycling back to the plasma membrane, the apo-Tf dissociates from the receptor, which can then bind new iron-loaded Tf. In addition, TfR is able to transcytose proteins across endothelium/epithelium and the ectodomain can be secreted as circulating serum TfR.<sup>3</sup>



**Source:** Recombinant monoclonal VHH (*Llama glama*), purified from *S.cerevisiae* using affinity chromatography. Immunization with HUVEC cells. Phage-display selection on captured recombinant ectodomain with total elution.

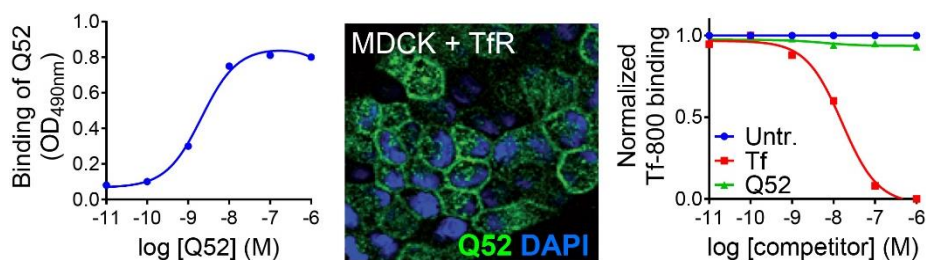
**Specificity:** Human TfR/CD71.  
Q52 does not compete for Tf binding.

**Formulation:** 0.2 µm filtered solution in PBS.

**Storage:** Shipped on blue ice. Store at 4°C or -20°C (aliquots). Addition of 0.02% sodiumazide is optional.

**Applications:** ELISA, IF

**Examples:**



Binding of Q52 to either TfR ectodomain in ELISA (left) or TfR on transfected MDCK cells in IF (green, middle). Q52 does not compete for binding of Tf<sup>R800CW</sup> to TfR ectodomain (green, right). Homologous displacement of Tf is shown in red.

**Products:**

Cat. No.	Target	Tag	Label
Q52	TfR	Tagless	No label
Q52c	TfR	C-direct	No label
Q52c-lab	TfR	C-direct	Biotin / NOTA / HiLyte488 / IRDye800CW

**References:**

- [Schneider et al.](#), (1984) Nature 311, 675-678
- [Ciechanover et al.](#), (1983) J Cell Biochem 23, 107-130
- [Skikne](#), (2008) Am J Hematol 83, 872-875