

Screening Libraries

Proteins

Inhibitors



Product Data Sheet

TFRC Protein, Cynomolgus (Biotinylated, HEK293, His)

Cat. No.: HY-P78904

Synonyms: CD71; TFRC; TFR; sTfR; TfR1; Trfr; T9; p90

Species: Cynomolgus HEK293 Source:

Accession: G8F602 (C89-F760)

Gene ID:

Molecular Weight: 70-90 kDa

Ρ				

Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 μm filtered solution of PBS, pH 7.4. Normally trehalose is added as protectant before lyophilization.
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 ₂ 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 recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

TFRC protein orchestrates the cellular uptake of iron through receptor-mediated endocytosis of ligand-occupied transferrin receptors into specialized endosomes. This process involves endosomal acidification, leading to the release of iron, followed by the recycling of the apotransferrin-receptor complex to the cell surface with a return to neutral pH, concomitant with the loss of apotransferrin affinity for its receptor. Essential for the development of erythrocytes and the nervous system, TFRC serves a critical role in iron homeostasis. Beyond its iron-related functions, TFRC acts as a lipid sensor, regulating mitochondrial fusion by modulating the activation of the JNK pathway. Furthermore, TFRC forms homodimers through disulfide linkages, adding another layer to its multifaceted involvement in cellular processes.

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

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