

## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet

## **Native Human CD71**

Catalog No.	Species
DS-01-0048	Human

## **Description**

CD71, also known as the transferrin receptor (TFR), is a type II membrane glycoprotein that exists as a disulfide-linked homodimer of two identical 95 kDa subunits. CD71 binds to two molecules of transferrin and a serum iron-transport protein and directs the cellular uptake of iron via receptormediated endocytosis. CD71 is expressed, typically at high levels, on all proliferating cells, reticulocytes and erythroid precursors. It is not expressed on resting leukocytes, but is upregulated upon activation of lymphocytes, monocytes and macrophages. CD71 is also found on most dividing cells and on brain endothelium. A second transferrin receptor, TFR2, also mediates the uptake of transferrin-bound iron. TFR2 is a homodimer of two 90 kDa subunits and is highly expressed in liver as well as in hepatocytes and erythroid precursors. Mutations in the TFR2 gene result in hereditary hemochromatosis type III (HFE3), an iron overloading disorder predominant in Caucasians.

## **Applications**

Table Summary of Protein Applications and Working Conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	•			
Western Blotting				
Immunohistology				
EIA				
Flow Cytometry			*	
Immunofluorence staining				
IFA			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.



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#### **Product Form**

Purified protein from human placenta - liquid

# Physical Appearance

Crude protein preparation from human serum – liquid

#### **Formulation**

Source: Tissue sample tested negative for HIV I and II antibodies, Hepatitis B surface antigen and

Hepatitis C antibodies.

**Buffer Solution:** Phosphate buffered saline **Approx. Protein Concentrations:** 0.1 mg/ml

**Molecular Weight:** On SDS-PAGE a band corresponding to the Transferrin receptor dimer, molecular weight of 180 kDa, is visible along with higher polymers. On reduction with mercaptoethanol, a single

band at 90 kDa is visible.

# Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the protein. Should this product contain a precipitate we recommend microcentrifugation before use.

**Shelf Life:** 12 months from date of dispatch