

CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET

Product name	CD36, Mouse, clone CRF D-2712	Expiry date	-
Catalog number	HM1074-100UG	Amount	>100 µg
Lot number	-	Concentration	>50 µg/ml
Volume	2 ml	Conjugate	None
Formulation	Culture medium	Purification	N.A.
Host Species	Mouse IgA		
Endotoxin	<24 EU/mg		
Storage	4°C		

Application notes

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #								
Yes			•	•	•		•	•
No								
N.D.	•	•				•		

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot

Dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:25.

- FS: dilutions have to be made according to the amounts of CD36 binding to be blocked.

General Information
Description

Monoclonal antibody CRF D-2712 (also known as JC63.1 or 63) reacts with mouse CD36 (85-kDa), a cell surface class B scavenger receptor. Recently, CD36 has been identified as a protein that is required for TLR2 recognition of diacylated bacterial lipopeptides and lipoteichoic acid. CD36 is a heavily N-glycosylated transmembrane protein with two short intracellular domains and a large extracellular domain. CD36 expression is primarily controlled by the transcription heterodimer PPAR γ -RXR (peroxisome proliferator-activated receptor-g-retinoid-X-receptor). CD36 is preferentially found within lipid rafts, which facilitates its association with receptors, signalling and adaptor molecules. CD36 is expressed on monocytes, macrophages, endothelial cells, hepatocytes, erythrocytes, adipocytes, cardiomyocytes and red skeletal muscle. Importantly it is expressed by steroidogenic cells in the adrenal gland, testis and ovary. CD36 has been implicated in many biological processes including angiogenesis, phagocytosis, inflammation, and lipid and glucose metabolism. CD36 is associated with Src-family kinases and with the integrins α 3 β 1 and α 6 β 1. It is a receptor and transporter of oxidized lipids and long chain fatty acids. CD36 has been shown to function as phagocytic receptor for apoptotic cells. Several in vivo models support the role of the thrombospondin / CD36 system in angiogenesis and tumor growth. An important role for CD36 has been found in Malaria as major receptor for *P. falciparum*-infected red blood cells. Many different ligands have been reported to interact with CD36, suggesting that CD36 could recognize a structure-based domain rather than specific contact residues. Monoclonal antibody CRF D-2712 blocks CD36 binding. It is not known whether the antibody is activating or neutralizing. The antibody cross reacts with rat CD36.

References

1. Finnemann, S et al; Differential roles of CD36 and α -v- β 5 integrin in photoreceptor phagocytosis by the retinal pigment epithelium. *J Exp Med* 2001, 9: 1289
2. Kunjathoor, V et al; Scavenger receptors class AI/II and CD36 are the principal receptors responsible for the uptake of modified low density lipoprotein leading to lipid loading in macrophages. *J Biol Chem* 2002, 277: 49982
3. Corcoran, L et al; Differential regulation of CD36 expression in antigen-presenting cells: Oct-2 dependence in B lymphocytes but not dendritic cells or macrophages. *Int Immunol* 2002, 14: 1099
4. Smith, T et al; CD36-mediated nonopsonic phagocytosis of erythrocytes infected with stage I and IIA gametocytes of plasmodium falciparum. *Infect Immun* 2003, 71: 393
5. Gimeno, R et al; Characterization of a heart-specific fatty acid transport protein. *J Biol Chem* 2003, 278: 16039
6. Bastie, C et al; FoxO1 stimulates fatty acid uptake and oxidation in muscle cells through CD36-dependent and independent mechanisms. *J Biol Chem* 2005, 280: 14222

Storage&stability Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.

Precautions For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC
Brenda Teunissen

Date
12/11/2019

Do you have any questions or comments regarding this product? Please contact us via support@hycultbiotech.com.