

# Product Information



## CD36 Blocking Peptide

Catalog No. 300011

CD36 is a type-B scavenger receptor that is necessary for the formation of foam cells in atherosclerotic lesions.<sup>1-4</sup> This membrane glycoprotein can internalize fatty acids which activate PPAR $\gamma$  and stimulate further expression of CD36.<sup>5,6</sup> This positive feedback loop combined with the murine CD36 knock-out studies reinforces the importance of CD36 in lipid metabolism. Additionally CD36 is needed for the phagocytosis of *P. falciparum* infected erythrocytes, retinal pigment epithelial cell photoreceptor fragments, and post-apoptotic monocytes and neutrophils.<sup>7-10</sup> CD36 expression has been monitored during hematopoietic cell differentiation and may be an indicator of tumor spreading in lymphocytic leukemia.<sup>11</sup> This transmembrane glycoprotein is detected by immunoblotting at 88 kDa or 54 kDa depending on the degree of glycosylation of the receptor in your sample. Positive controls include adipose and heart tissue, platelets, and macrophages.

### Laboratory Procedures

This vial contains 200  $\mu$ g of lyophilized peptide derived from the human CD36 amino acids 99-114 (AKENVQTQDAEDNTVSF). This blocking peptide can be used in conjunction with Cayman's CD36 Polyclonal Antibody (Catalog No. 100011) to block protein-antibody complex formation during immunochemical analysis of CD36.

Reconstitute the lyophilized peptide with 200  $\mu$ l of PBS or distilled water. Store this peptide solution at -20°C. It should be stable for at least two years. To block antibody/protein complex formation, the following procedure is recommended:

1. Mix the CD36 Polyclonal Antibody (Catalog No. 100011) and blocking peptide together in a 1:1 (v/v) ratio in a microfuge tube. For example, mix 20  $\mu$ l of antibody and 20  $\mu$ l of peptide.\*
2. Incubate for 1 hour at room temperature with occasional mixing prior to further dilution and application of the mixture to the immunoblot.
3. Dilute the mixture to the final working antibody concentration and apply to the slide or membrane as usual.

\*This is a recommended mixture. The minimum amount of peptide needed for complete blocking has not been precisely determined and may vary depending on the sample being analyzed. The amount of peptide required may need to be increased if sufficient blocking does not occur.

### References

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### Related Product

CD36 Polyclonal Antibody - Cat. No. 100011 • CD36 Monoclonal Antibody - Cat. No. 188150

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent under separate cover to the MSDS supervisor at your institution.

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