Revision 1

#3544 Store at -20C

FABP4 (D25B3) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-IC	H M	Endogenous	15	Rabbit IgG	#P15090	2167

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

FABP4 (D25B3) XP® Rabbit mAb detects endogenous levels of total FABP4 protein. This antibody may cross react with other FABP family members.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to the sequence of human FABP4.

Background

Fatty acid binding proteins (FABPs) bind to fatty acids and other lipids to function as cytoplasmic lipid chaperones (1). They participate in the transport of fatty acids and other lipids to various cellular pathways (2). The predominant fatty acid binding protein found in adipocytes is FABP4, also called adipocyte fatty acid binding protein or aP2. FABP4 is also expressed in macrophages (3). FABP4 knockout mice fed a high-fat and high-calorie diet become obese but develop neither insulin resistance nor diabetes, suggesting that this protein might be a link between obesity and insulin resistance and diabetes (4). Mice deficient in both FABP4 and ApoE show protection against atherosclerosis when compared with mice deficient only in ApoE (3). Mice carrying a FABP4 genetic variant exhibit both reduced FABP4 expression and a reduced potential for developing type 2 diabetes and coronary heart disease. A related study in humans indicated a similar pattern, suggesting that FABP4 may be a potential therapeutic target in the treatment of these disorders (1).

Background References

1. Tuncman, G. et al. (2006) *Proc. Natl. Acad. Sci. USA* 103, 6970-6975.
2. Haunerland, N.H. and Spener, F. (2004) *Prog. Lipid Res.* 43, 328-349.
3. Makowski, L. et al. (2001) *Nat. Med.* 7, 699-705.
4. Hotamisligil, G.S. et al. (1996) *Science* 274, 1377-1379.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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Limited Uses

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