



## User's Manual

# Human FABP5/E-FABP ELISA Kit

REF

DEIABL528



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This product is for research use only and is not intended for diagnostic use.

For illustrative purposes only. To perform the assay the instructions for use provided with the kit have to be used.

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### Creative Diagnostics

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## PRODUCT INFORMATION

### Intended Use

This Human FABP5/E-FABP ELISA Kit is used for the quantitative measurement of human FABP5/E-FABP in serum, plasma, and saliva.

Individual users should determine appropriate conditions when using other types of samples.

This assay kit is for research use only and not for use in diagnostic or therapeutic procedures.

### General Description

Fatty acid-binding proteins (FABPs) are a class of cytoplasmic proteins that bind long chain fatty acids. FABPs are small intracellular proteins (~13-14 kDa) with a high degree of tissue specificity. They are abundantly present in various cell types and play an important role in the intracellular utilization of fatty acids, transport and metabolism. There are at least nine distinct types of FABP, each showing a specific pattern of tissue expression.

Epidermal fatty acid binding protein (E-FABP and FABP5, and also called mal1 in mice) belongs to the intracellular FABP family and is expressed in differentiated adipocytes, macrophages, skin, brain, mammary glands and so on. Human FABP5/E-FABP has a high degree of homology to aP2 (mouse FABP4) and is also an important player in obesity-related disorders. FABP5/E-FABP/mal1 knockout mice exhibited enhanced insulin-stimulated glucose uptake and increased systemic insulin sensitivity, while transgenic overexpression of FABP5/E-FABP aggravated insulin resistance and hyperglycemia. Conversely, a marked compensatory up-regulation of adipocyte FABP5/E-FABP expression was observed in FABP4/ aP2-deficient mice.

### Reagents And Materials Provided

**Microplate:** One microplate supplied ready to use, with 96 wells (12 strips of 8-wells) in a foil, zip-lock bag with a desiccant pack. Wells are coated with anti-human FABP5/E-FABP monoclonal antibody as a capture antibody.

**10X Wash Buffer:** One bottle containing 100 mL of 10X buffer containing Tween®-20

**Dilution Buffer:** One bottle containing 50 mL of 1X buffer; use for standard reconstitution and sample dilution. Ready to use.

**Human FABP5 Standard:** One vial containing X\* ng of lyophilized recombinant human FABP5/E-FABP

\*The amount is changed depending on lot. See the real "Datasheet" included in the kit box.

**HRP conjugated Detection Antibody:** One vial containing 12 mL of HRP (horseradish peroxidase) conjugated anti-human FABP5 monoclonal antibody. Ready to use.

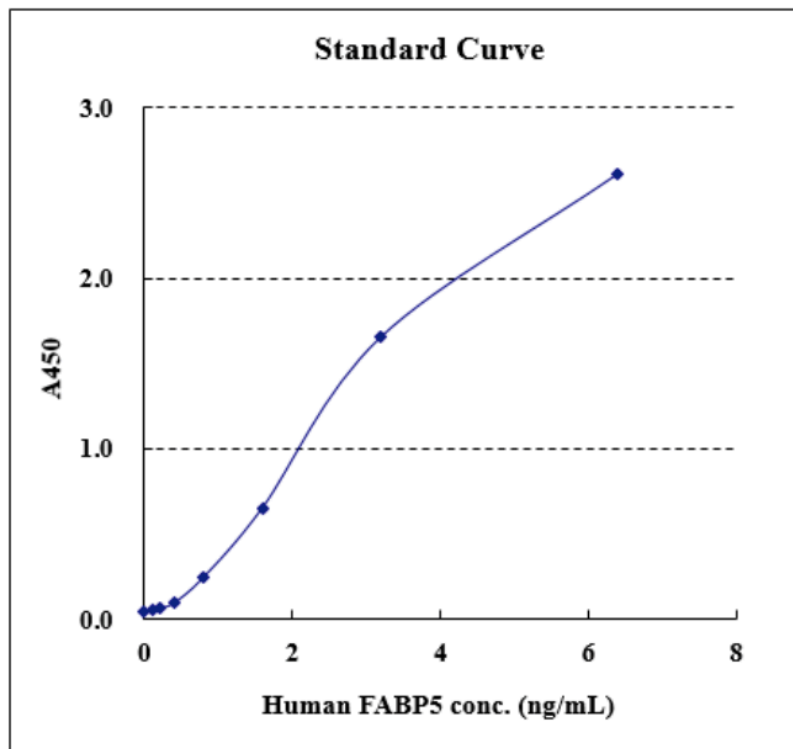
**Substrate Reagent:** One bottle containing 20 mL of the chromogenic substrate, tetra-methylbenzidine (TMB). Ready to use.

**Stop Solution:** One bottle containing 20 mL of 1 N H<sub>2</sub>SO<sub>4</sub>. Ready to use.

### Storage

- Upon receipt store all components at 4°C.
- Don't expose reagents to excessive light.

## Typical Standard Curve



## Precision

Intra-assay (Within-Run, n=16) CV=2.9, 1.8, 4.7 %

Inter-assay (Run-to-Run, n=5) CV=10.2, 5.7, 6.2 %

## Sensitivity

The limit of detection (defined as such a concentration of human FABP5/E-FABP giving absorbance higher than mean absorbance of blank\* plus three standard deviations of the absorbance of blank: A blank + 3SD blank) is better than 228 pg/mL of sample.