Datasheet for ABIN7566145

# FNDC4 Protein (AA 41-163, AA 45-167) (Fc Tag)

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## Overview

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| Quantity: | 3 x 50 µg |
| Target: | FNDC4 |
| Protein Characteristics: | AA 41-163, AA 45-167 |
| Origin: | Human, Dog, Monkey, Mouse, Rat |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This FNDC4 protein is labelled with Fc Tag. |

## Product Details

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| Purpose: | Fc (human):FNDC4 (rec.) |
| Cross-Reactivity: | Dog, Human, Monkey, Mouse, Rat |
| Characteristics: | FNDC4 (extracellular domain, human (aa 45-167) / mouse (aa 41-163)) is fused at the N-terminus to the Fc portion of human IgG1. FNDC4 extracellular domain has 100 % identity between human, mouse, rat, dog and monkey. |
| Purity: | >95 % (SDS-PAGE) |
| Endotoxin Level: | <0.01EU/µg purified protein (LAL test). |

## Target Details

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| Target: | FNDC4 |
| Alternative Name: | FNDC4 (FNDC4 Products) |

## Target Details

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| Background: | Fibronectin Type III Domain-containing Protein 4, Fibronectin Type III Repeat-containing Protein 1, Fc Soluble FNDC4, FcsFNDC4<br>Irisin is a recently described exercise-induced hormone secreted by skeletal muscle in mice and humans. Irisin activates beige fat cells (beige cells have a gene expression pattern distinct from either white or brown fat and are preferentially sensitive to the polypeptide hormone irisin). Irisin is cleaved from the type I membrane protein FNDC5 and improves systemic metabolism by increasing energy expenditure. FNDC4 is an ortholog of FNDC5 with 50 % identity and 86 % similarity compared to Irisin. FNDC4 as well as FNDC5 are extremely well conserved between species. The human FNDC4 gene is highly enriched in liver, brain tissue and adipocytes. FNDC4 is a factor with direct therapeutic potential in inflammatory bowel disease and possibly other inflammatory diseases. Recently, a new role of FNDC4 as a hepatokine has been published. Liver primarily controls the circulating levels of FNDC4 showing tight correlation with insulin sensitivity. In addition, a new orphan adhesion G protein-coupled receptor 116 (GPR116) has been identified as a receptor of FNDC4 in white adipose tissue (WAT), thereby establishing an endocrine FNDC4-GPR116 axis in the control of systemic glucose homeostasis. Moreover, the FNDC4-GPR116 axis is impaired in diabetic patients and therapeutic injections of recombinant Fc-FNDC4 into pre-diabetic mice corrected pre-diabetic hyperglycemia. |
| Molecular Weight: | ~55-60kDa |
| UniProt: | Q9H6D8 |

## Application Details

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| Restrictions: | For Research Use only |

## Handling

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| Format: | Lyophilized |
| Reconstitution: | 1 mg/mL after reconstitution |
| Concentration: | 1 mg/mL |
| Buffer: | Contains PBS. |
| Handling Advice: | After reconstitution, prepare aliquots and store at -20 °C.Avoid freeze/thaw cycles.Centrifuge lyophilized vial before opening and reconstitution.PBS containing at least 0.1 % BSA should be used for further dilutions. |
| Storage: | 4 °C,-20 °C |

## Handling

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| Storage Comment: | Short Term Storage: +4°C<br>Long Term Storage: -20°C<br>Use & Stability: Stable for at least 6 months after receipt when stored at -20°C. Working aliquots are stable for up to 3 months when stored at -20°C. |