Datasheet for ABIN7566144

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

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Overview

Quantity:	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

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

Target:	FNDC4
Alternative Name:	FNDC4 (FNDC4 Products)

Target Details

Background:	Fibronectin Type III Domain-containing Protein 4, Fibronectin Type III Repeat-containing Protein 1, Fc Soluble FNDC4, FcsFNDC4 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

Restrictions:	For Research Use only

Handling

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

Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C 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.