

32-20554: Recombinant Human/Murine/Rat Irisin(Discontinued)

Reactivity : Human, Mouse, Rat

Alternative Name : Fibronectin type III domain-containing protein 5 (FNDC5), Fibronectin type III repeat-containing protein 2 (FRCP2)

Description

Source:CHO cells

Irisin is a proteolytic hormone released into circulation by skeletal muscle tissue during acute exercise, and is a derivative of the cleaved plasma membrane protein Fibronectin type III domain-containing protein 5 (FNDC5). Found in muscle tissue, FNDC5 is synthesized at increased levels during exercise as a result of the overexpression of the exercise-responsive transcriptional co-activator PGC-1Alpha (peroxisome proliferator-activated receptor-Gamma co-activator-1Alpha). Like its parent polypeptide, Irisin can induce the browning of subcutaneous adipocytes, or the conversion of white adipose tissue (WAT or white fat) into brown (or beige) adipose tissue (BAT or brown fat). Given that brown fat can undergo thermogenesis, or the physiologic process of heat production, Irisin contributes to the metabolic process by increasing thermogenic function and glucose homeostasis. Irisin, thus, represents a link between exercise and "burning" of fats and/or sugars, and consequently may have relevance in the development of new treatments for diabetes and obesity. CHO cell-derived Recombinant Human/Murine/Rat Irisin is a glycosylated homodimer of 224 amino acid residues, whose monomer consists of 112 amino acid residues corresponding to the active portion of the 121-amino-acid length Irisin extracellular domain. Recombinant Human/Murine/Rat Irisin, appears to form a non-disulfide linked oligomeric structure in solution, has a calculated theoretical molecular weight of 25.2 kDa, but migrates at an apparent molecular weight of 28 kDa by SDS-PAGE analysis under reducing conditions due to glycosylation.

Product Info

Amount : 2 µg / 10 µg

Purification : Purity: >= 90% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : DSAPSAPVNVTVRHLKANSVAVVSWDVLEDEVVIGFAISQQKDVRLRFIQEVNTTTRSCALWDLEEDTEYIVHVQAISIQGQSPASEPVLFKTPREAEMASKNKDEVTK

Application Note

Determined by its ability to promote cell survival and growth of rat H9c2 cardio-myoblasts under serum starvation conditions.