Recombinant Human/Mouse/Rat Irisin/FNDC5 (N-6His)

Catalog Number: PKSH033918

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

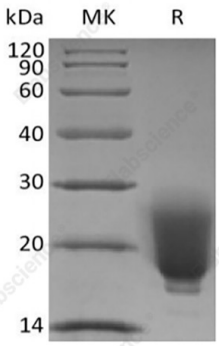
Description

Species	Human & Mouse & Rat
Source	HEK293 Cells-derived Human/Mouse/Rat Irisin;FNDC5 protein Asp32-Glu143, with an N-terminal His
Calculated MW	13.4 kDa
Observed MW	18-28 kDa
Accession	Q8NAU1
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Fibronectin type III domain-containing protein 5, the precursor of irisin, is a protein that is encoded by the FNDC5 gene.Human Irisin is synthesized as a 212 amino acid (aa) precursor encoding a type 1 transmembrane protein with a 121 aa extracellular domain (ECD), a 21 aa transmembrane domain, and a 39 aa cytoplasmic domain. The ECD of Irisin contains a fibronectin type III domain and multiple glycosylation sites. The ECD is proteolytically cleaved to release the 112 aa soluble Irisin hormone into circulation.Mature human, mouse share 100% sequence identity.Irisin induces expression of peroxisome proliferatoractivated receptor γ coactivator 1α (PGC1α) and uncoupling protein1(UCP1), mitochondrialassociated metabolic proteins. Irisin induces the transition of white adipose tissue into more metabolically active beige adipose tissue.Irisin also regulates neuronal cell differentiation and neurite outgrowth in the brain and is involved in the differentiation of osteoblasts.

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