

Recombinant Human/Mouse/Rat Irisin (C-6His)

Catalog No : PMK2152

Known As: Fibronectin type III domain-containing protein 5; Fibronectin type III repeat-containing protein 2; Irisin; FNDC5

PROPERTIES

Description	Recombinant Human/Mouse/Rat Fibronectin Type III Domain-containing Protein 5 is produced by our Mammalian expression system and the target gene encoding Asp32- Glu143 is expressed with a 6His tag at the C-terminus.
Accession	Q8NAU1
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Size	10µg/50µg/500µg/1mg
Purity	> 95%
Endotoxin	< 1 EU/µg as determined by LAL test.
Predicted Mol Mass	13.4 KDa
Apparent Mol Mass	20-28 KDa, reducing conditions
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting. It is not recommended to reconstitute to a concentration less than 100µg/ml. Dissolve the lyophilized protein in distilled water. Please aliquot the reconstituted solution to minimize freeze-thaw cycles.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature listed below
Storage	Lyophilized protein should be stored at ≤ -20°C, stable for one year after receipt. Reconstituted protein solution can be stored at 2-8°C for 2-7 days. Aliquots of reconstituted samples are stable at ≤ -20°C for 3 months.
Background	IFibronectin 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 proliferator-activated receptor γ coactivator 1α (PGC1α) and uncoupling protein1 (UCP1), mitochondrial associated 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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